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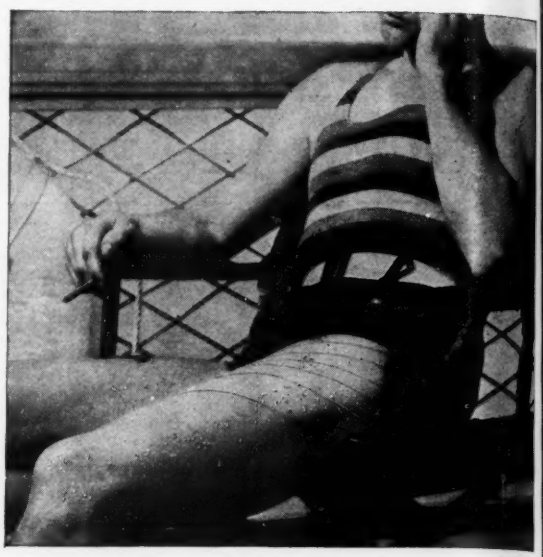

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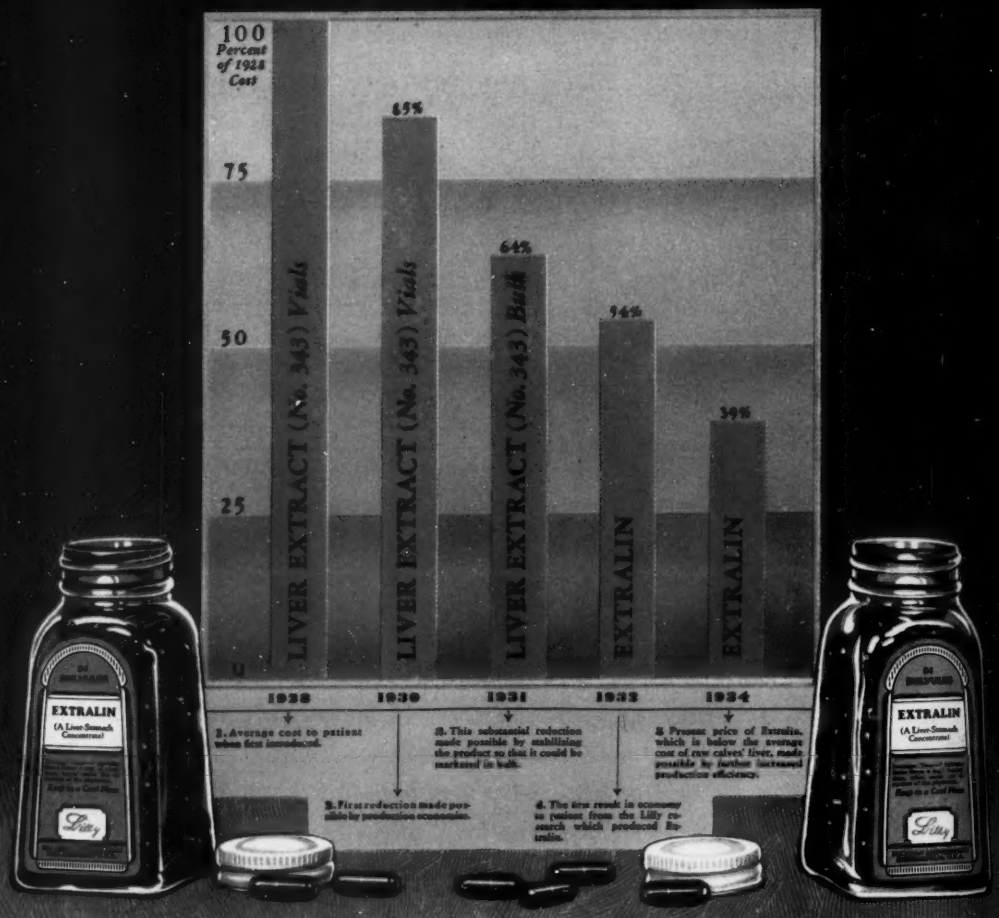
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THE JOURNAL
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Vol. XXXV TOPEKA, KANSAS, SEPTEMBER, 1934 No. 9

*ORIGINAL ARTICLES*

## SOME RECENT DEVELOPMENTS IN PHYSICAL DIAGNOSIS*

Oscar W. Bethea, M.D.†
New Orleans, La.

As a result of years of effort in trying to secure the greatest amount of information from physical examinations, I have found some procedures of sufficient value to be worth presenting for your consideration. Most of these have been previously published. In using new illustrations and more detailed descriptions my aim is to stimulate greater interest, further study and a more general use of a better procedure.

In preparing for a physical examination of the chest the first consideration is that of obtaining a favorable environment.

Quiet is essential. In the home or hospital unnecessary persons should be excluded and those remaining instructed as to the avoidance of movement or noise. Even a loudly ticking clock may be removed from the room. Outside noises can be lessened by temporarily closing the windows and doors. In my private office I have had for many years an inside sound-proof examining room that has proven invaluable for good work.

The temperature of the examining room should be comfortable. If too cold, complete relaxation may not be secured and there are apt to be muscle tremors and the development of "goose flesh" resulting in much confusing "static." If too warm the patient may be uncomfortable, breathe abnormally and perspiration interfere materially with satisfactory auscultation, especially if a diaphragm type of stethescope is used. I am so fortunate as to have an office adequately warmed in winter and "air conditioned" in summer. The latter convenience further enables me to shut out other sounds from the entire suite. Men should be stripped to the waist; women may have their feelings respected by exposing only part of the chest at a time, but should be so prepared that this can be accomplished readily, especially so that corresponding areas on the two sides can be exposed at the same time. Women of today seldom cause difficulty in such matters.

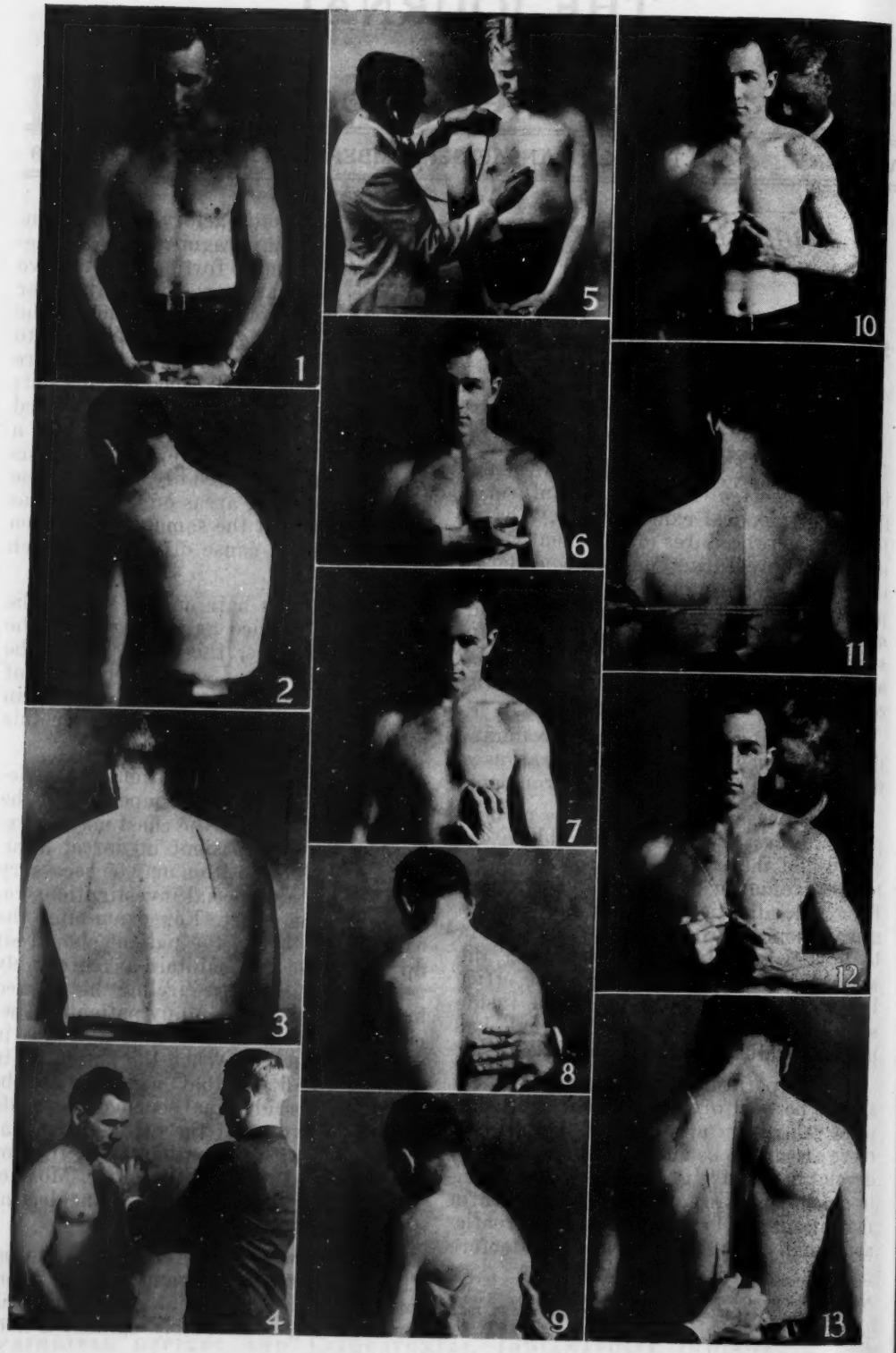
When there is hair on the area to be particularly studied as the region of the pulmonary apices, this area should be carefully shaved. I have found it of marked advantage to sprinkle the skin with talcum and to lightly go over this with a cotton sponge.

The position of the patient must depend upon his ability to cooperate. In the bed case the front of the chest may be examined with the patient in dorsal decubitus. A shift of position may be necessary only for certain special investigations relating to the heart. For examining the back of the thorax the patient should sit up if possible and maintain a comfortably relaxed position by circling his flexed knees with his arms. Many patients, especially children, may comfortably lie in ventral decubitus. When the patient is in such a condition that he can only be turned on his side, final conclusions should not be drawn until the examination has been made with the patient lying first on one side and then on the other. Most of us have been led into error by neglecting this precaution.

In office work I prefer to have the patient standing. For examining the front of the chest I have him placed with his back resting comfortably against a door

*Address before the 76th Annual Meeting of the Kansas Medical Society at Wichita, Kansas, May 9, 10 and 11, 1934.

†Professor of Clinical Medicine, Tulane University.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(Fig. 1), the fingers locked, the arms relaxed, the shoulders drooped and the gaze directed downward at an angle of about 45° and fixed on a definite object. The results are: The patient is comfortable; relaxation is complete; the hands are occupied, thus preventing scratching, rubbing or other disturbing movements; the head is fixed in position; and the breath is directed downward. In examining the back of the thorax I have the patient stand out from the wall, the hands and position generally the same as just described except that the body is inclined further forward by directing him to look between his feet. (Fig. 2). I have measured the interscapular spaces exposed in the various positions commonly used for such work, by marking the vertebral borders of the scapulae and have found that this position meets the requirements as well as any other if not better (Fig. 3).

Often our most important findings result from a comparison of the two sides of the chest. Therefore to obtain the most accurate results from percussion, it is necessary that the examiner stand with his ears equidistant from the corresponding areas studied, that is directly behind or in front of the patient (Fig. 4). If the examiner has only one good ear that ear should occupy this central position.

Fig. 1—Position for examining the front of the chest.

Fig. 2—Position for examining the back of the chest.

Fig. 3—Showing the interscapular space exposed for examination.

Fig. 4—Showing position of examiner for percussion.

Fig. 5—A method for securing cooperation of the patient for auscultation.

Fig. 6—Palpating the apical impulse of the heart.

Fig. 7—Finger tip palpation of the apical impulse of the heart.

Fig. 8—Spread finger palpation of the chest.

Fig. 9—Palpation to determine unilateral impairment of apical expansion.

Fig. 10—Circumferential mensuration to determine unilateral impairment (front).

Fig. 11—Circumferential mensuration to determine unilateral impairment (back).

Fig. 12—Measuring the upper thorax to determine unilateral impairment (front).

Fig. 13—Measuring the upper thorax to determine unilateral impairment (rear).

In percussing the two sides for comparison, if this be done indiscriminately through the respiratory cycles, one side may be struck when the chest is empty of tidal air and the other when it is full, thus giving a misleading difference. Percussion of corresponding areas is best done while the patient holds his breath at the end of exhalation and at the end of inhalation, this to be repeated until the whole chest has been covered.

For each auscultatory combination—patient, examiner, stethescope, environment, there is a rate and depth of respiratory movement that will give the best result. Sometimes we have this without interference. More often we do not. We may either do our best with what the patient offers or try to secure ideal cooperation. I wish to recommend the following scheme as having met the requirements well.

The above facts are briefly explained to the patient. The chest piece of the stethescope is then placed over an apex; the examiner's free hand is held in front of the patient and he is instructed to watch it, inhaling as the hand is raised; exhaling as it is lowered, and pausing when it pauses. In this way the breathing is directed until that rate, depth, and smoothness is obtained which best meets the requirements of that particular case (Fig. 5). The patient is then told to continue to breathe in that way and the directing hand is withdrawn.

It is sometimes difficult to locate the apex impulse of the heart, yet its determination is always important. I have often been aided by palpating the intercostal spaces with the ulnar side and little finger of the right hand. (Fig. 6). The hand is placed with the palm up as it may then be curved better to fit the curving intercostal spaces. The greater sensitiveness of the area supplied by the ulnar nerve to certain impressions has been demonstrated, and this procedure may be of some additional value in right-handed individuals.

Another plan is to place the sensitive tips of the slightly separated fingers in the intercostal spaces (Fig. 7). Either of these procedures may be reinforced by taking advantage of forced respiratory movements. We have learned in using the

cardio-respiratory test of Frost that toward the end or just after a forceful respiratory effort the systolic pressure rises, and therefore the heart beats with more force. At the end of an exhalation we also have the further advantage of pulmonary retraction better exposing the heart.

For palpating the thorax to locate impaired fremitus the custom has been to apply the palmar surface of the whole hand or of the fingers, or of the back of the fingers or the ulnar side of the hand. What I wish to suggest is that in doing this we apply only the palmar surfaces of the slightly separated but nearly paralleled fingers (Fig. 8). The palm of the hand should not touch the skin as in this way there is less tendency for vibration to be transmitted from one finger to another by direct contact. Beginning well up in the area of normal vibration, the hand is lowered a finger's breadth at a time until we are conscious of the fact that there is less vibration under the lower finger than under the two lower fingers and finally only the upper finger is in the area of unmodified vibration. A blue pencil mark is then made between the two upper fingers. The hand is so placed that the little finger is uppermost as it is supplied by the ulnar nerve.

In palpation to determine unilateral impairment of apical expansion the custom has been to stand back of the patient, saddle the hands across the shoulders with the fingers covering the upper front of corresponding sides of the chest; or to stand in front of the patient and place the palmar surfaces of the hands and fingers over the front upper part of the chest as the patient breathes in and out. My suggestion is that we stand or sit directly back of the patient, placing the finger tips high up in the axillary region on each side so that they will rest in corresponding intercostal spaces and on the tops of corresponding ribs. The hands are anchored in position by the palms and thumbs grasping the scapula groups of muscles (Fig. 9). As the patient breathes in and out the examining hands remain in position on the skin while the ribs in rotating and lifting glide under the finger tips. The usual movement is a little more than one rib-width. I believe that in this way we can more accurately determine any unilateral impairment of movement. This finding is further accentuated by the fact that when one side is impaired the other side tends to take on a compensatory hyperactivity.

The matter of mensuration of the chest has largely fallen into disuse due to the paucity and inaccuracy of the information obtained. The custom has been to determine merely the normal circumference of the chest and the degree of total movement by passing a tape around and taking the readings at rest, at the end of forced inhalation and at the end of forced exhalation. This gives no clue as to the most important data, that of the comparative size and comparative movement of the two sides. I arranged a special device consisting of an overcoat button, a carpet tack and two pieces of common tape, reading out in each direction from the common center. With this crude equipment I measured the chests of 150 patients who had tuberculosis, acute pleurisy, pleurisy with serous effusion; localized and general empyema, pulmonary abscesses, and carcinoma. These patients were all studied by means of *x*-ray, physical examination, etc., and the information obtained by this mensuration proved reliable and valuable. This chest tape is now on the market consisting of a central metal button to which are hinged two pieces of tape, graduated both in inches and centimeters. The patient is first prepared by making blue pencil marks down the midline, in the front and back of the chest. The central piece is held on the line in front by an assistant or by the patient. When it is held by the patient, the index fingers of both hands are used so as to make the distribution of the chest muscles equal on both sides (Fig. 10). The reading is taken where the two tapes cross the median line in the back (Fig. 11). This is done at rest, at the end of a forced inhalation and at the end of a forced exhalation. As these readings are taken at the same time, during the same stages of the same respiratory cycles, the findings are naturally accurate.

We became interested in the results of taking these measurements across the

shoulders and the two pieces of tape are hinged on the common center so that this can be readily done (Fig. 12). In preparing a patient for this a transverse line is made across the lower thorax in the back and the readings are taken where the tapes cross this line (Fig. 13), at rest, at the end of inhalation and at the end of exhalation. I have not sufficient data on this to justify any definite conclusions but so far the findings have been interesting.

As might be expected in the circumferential measurements, some data was definite. For example: in pleurisy with either serous or purulent effusion, the diseased side was larger and moved less on respiration; in fibroid phthisis the diseased side was smaller and moved less on respiration. In the shoulder measurements present findings indicate that at least supplementary information of value may be obtained in apical involvement. We should remember that one of the first reactions to disease is muscular fixation of the area. We recognize this as an important finding in such diseases as appendicitis and cholecystitis. We sometimes overlook the fact that the same condition obtains in diseases of the thorax and that here also there will be naturally a limitation of the respiratory movement on the side involved. It is probable, therefore, that mensuration has a larger field of usefulness than is sometimes imagined.

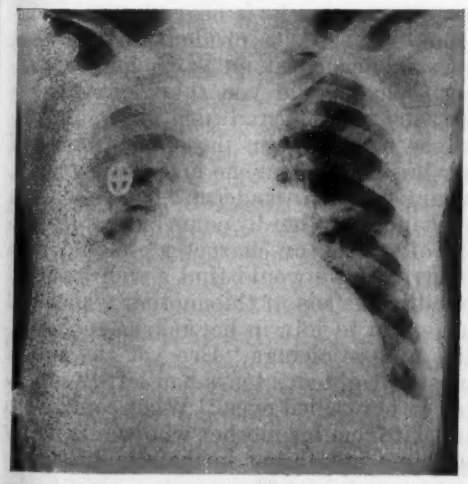

Fig. 14—The use of lead markers to determine the best site for aspiration.

In pulmonary conditions requiring surgical approach such as pleurisy with effusion, the custom has been to make a physical examination, have a film made and when the findings indicate that aspiration or other operative procedure is necessary, to pick out the site for puncture or incision by a study of the film and reexamination of the chest. I tried the plan of making a physical examination and, when it seemed that operative interference might be necessary, to pick out what seemed to be the most desirable site, fix a small coin to this area with adhesive plaster and then send the patient for *x*-ray study. When the film was studied later we could determine with considerable accuracy if the proposed site was the best, if not we could measure the correct distance and direction on the film then make the same measurements from the marker which had been left on the chest of the patient. The results were highly satisfactory. We found, however, that small coins sometimes did not show up well on the films and particularly did not lend themselves to the making of cuts for publication. This especially obtained where the details were not clear due to the presence of marked pathological changes.

With the assistance of Mr. Charles K. Goodman, radiological technician at the Baptist Hospital in New Orleans, we devised a distinctive marker that could not be mistaken for anything else. (Fig. 14). This is now on the market at a nominal cost. When a patient has already been aspirated, it is our custom to cover each old puncture wound with a marker before having a film made. We have had some cases in which we have been able to determine that previous punctures for aspiration, particularly in trying to move localized accumulations had been quite far away from the material and in several instances we have demonstrated that entrance had been made well below the diaphragm. This plan is not recommended as perfect, but as one of the many aids that at times prove of such value as to justify their uniform employment.

## THE INSANITY OF HAMLET*

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Life in all its forms, physical and mental, morbid and healthy, is a relation; its phenomena result from the reciprocal action of an individual organism and of external forces; health is the consequence and the evidence of a successful adaptation to the conditions of existence and imports the preservation, the well-being and development of the organism, while disease marks a failure in organic adaptation to external conditions and leads to disorder, decay and death. The harmonious relation existing between the organism and its environment which is the condition of health may be disturbed either (1) by a cause in the organism; (2) by a cause in the environment, and (3) by cause or causes in both. We hear it often said that a person's mind is broken down in consequence of adverse conditions of life, social or physical. In all these cases it can very certainly be presupposed there was a weakness in the nerve element either inherited or acquired, which has cooperated. For were the nervous system without flaw or infirmity—in a state of perfect soundness and in possession of that reserve power with which it does adapt itself within certain limits to the ever varying external conditions, it is certainly not likely that unfavorable circumstances would be all sufficient to so disturb the relation as to initiate mental disease. What we desire to emphasize is that external causes alone very rarely produce mental disease, but where there is a concurrence of causes, arising partly within the organism and partly without—an unfavorable action from without conspiring with an infirmity of the system within, establish in the largest percentage of instances that disorder and discord known as insanity. And this applies not alone to insanity but to all diseases to which human flesh is heir. Why do not all persons take consumption? Why do some experience an immunity to infection from any contagious disease? Why are not all persons infected with parasites? It is explained by the same biological law that gives us the reason why a clay bank will not grow sweet-potatoes and an ashpile raise earth-worms. Great mistakes are very often made, even by men of culture in fixing upon the supposed causes of disease in particular cases. A single prominent event is selected as in itself effective to explain the whole disaster, when that event alone was perhaps merely one in a whole train of causes. A series of external events in concurrence with steadily operating conditions within—but not a single event—an accident, a sorrow, or need or adversity—can alone be regarded as adequate cause for insanity. When we are told that a man has become insane or mentally deranged by sorrow: we have not sounded the cause if we stop there. How is it that another who undergoes an exactly similar adversity or one of even greater degree does not go mad? The entire causes could not possibly have been the same where the effects were so different.

The germs of insanity are often latent in the foundations of the character—may reach back through a lifetime or have its root in the foregoing generation. Man gets much from his parents in addition to the spark of life. His father, his mother, his grandfather, his grandmother, are latent and declare themselves in him: and it is on the lines thus laid in his nature that his development will proceed. It is not by virtue of education so much as by virtue of inheritance that he is brave or timid, generous or selfish, prudent or reckless, boastful or modest, quick or placid in temper. What would you think of a child's nervous makeup and mental equilibrium whose mother upon the sudden death of her husband whom she loved to extremes, would marry in indecent haste her late husband's brother by name but not in quality of person or character? Would it be likely that we would find a well balanced mind in the son of this mother who would urge him to join in her marriage festivities and rejoicings "Ere yet the salt of most unrighteous tears had left the flushing in her galled eyes." What could a son inherit from his mother who would marry within a month her husband's, his brother's, murderer? He may have received a high degree of culture from his school-

*Read before the Saturday Night Club, at Topeka, Kansas, October 18, 1890. It is interesting to note this paper was prepared and given by a physician before the birth of two sons who later entered psychiatry.—Editor.

masters but his inheritance from his mother offsets all training in his mental sphere. Breed has a more vital influence on character and mentality than training or culture. We look to the tree for fruit after its kind and we cannot be persuaded that grapes will ever grow on thorns or figs on thistles.

Facts which establish the reality of insanity beyond a doubt in the opinion of medical witnesses who have spent years in the observation of the insane have been time and again questioned and argued to be mere feigned or simulated symptoms and capable of being explained without resorting to the theory of insanity. The celebrated trial of Abner Rogers in Massachusetts is one in point. In this case the facts proved beyond all doubt that he was insane, yet the prosecuting attorney sinking under the difficulties of a bad case, disposed of the facts by arguing and proving that these symptoms were not real but only feigned. Can simulation of insanity be detected? The common opinion is, among those who are at all qualified to form such an opinion, that sufficient opportunity being given simulated insanity can always be detected by those who have such practical knowledge of the disease. Was Hamlet insane or was he a mere simulator?

> "How strange or odd soe'er I bear myself—
> As I, perchance, hereafter shall think meet
> To put an antic disposition on—"

These three short lines have been productive of much mischief—much argument. It is a clever bait and many a fish that swam classic seas thoughtlessly bit at it and was caught. Dr. Johnson could see in the madness of Hamlet only a provocative of mirth; and even Coleridge profoundly as he discoursed on the various springs and forms of human thought, regarded it as a clever sham, used for the purpose of concealing a real design. Until within a few years, Hamlet's derangement was almost universally regarded as feigned. Aside from his own intimation after meeting the ghost it is difficult to conceive of any foundation for this opinion. And yet it would seem as if the strongest and clearest reasons alone could warrant the idea that the most faithful delineation of a disordered mind ever made by man represents a deceptive counterfeit, not a truth and a reality. Without a single adequate reason, this notion has been handed down, like an heirloom from one critic to another, unquestioned and apparently unquestionable in the very face of the fact that Hamlet's insanity, which is supposed to be assumed for the purpose of concealing his plans, immediately excites the apprehensions of the king and leads to his own banishment from the state. A most perverse ingenuity has been exercised in endeavoring to reconcile some passages in Hamlet's conduct with the admitted qualities of his character and the ordinary springs of human action. Hamlet's disorder is often manifested under circumstances that forbid the idea of simulation.

Because of an inability to discern the essential distinctions between real and feigned insanity we believe many critics have been loath to abandon the old views of Hamlet's mental status. To extenuate their position they say it was not Shakespeare's endeavor to represent a case of genuine disease when confronted with some passage that could hardly be feigned and assert that it only proves the poet's great power of imitation. Although Shakespeare's intellect was an overmastering power which still recoils from its encumbering clay, critics attribute quite too much to him because there are many traits of the real disease that defy the utmost efforts of mimicry to simulate. The perversion of the moral affections, the sincere and solemn earnestness with which the patient announces and asserts his delusions, that particular train of thoughts, so difficult to describe, but so characteristic of insanity—all these are traits as far beyond the power of the simulator to imitate, as the quick pulse, furred tongue and dry skin of its more recent and acute forms. Then, too, critics overlook the very purpose of feigning. It is to deceive, to hoodwink the spectator into the belief of something that has no real existence. Hence only such traits of the disease are exhibited which would make the strongest and best impression and all those most carefully avoided that are least often noticed and those that would pass in the world for something else, such as eccen-

tricity, bad humor or low spirits. The purposes of the simulator require that the traits he assumes should be obvious immediately and so he forces them on the attention with no regard to pathological propriety or to any principle of subordination. That Shakespeare bore this distinction in mind in the present instance, is obvious in every scene of the play. All can recognize insanity in one who raves or utters gross delusions, but few can see it in Hamlet's scorching rebuke of his mother, in his harsh treatment to Ophelia, in his murder of Polonius, in his famous soliloquy on death, or in his welcoming address to his old schoolfellows. In much of this conduct and discourse most persons would see nothing more than an extreme acerbity of temper, an early experience of the hollowness of life and at worst perhaps, a fit of depression.

The theory of insanity will explain very satisfactorily all difficulties which have received such various solutions. The character and conduct of Hamlet are in the strictest accordance with the principles of human nature. Hamlet was no automaton but a living human soul and as in the case of most distinguished men, his character is not so easily read. The integrity of every train of thought is marred by some intrusion of disease—the smooth deep current of his feelings is turned into eddies and whirlpools under its influence and his solemn undertakings conducted to an abortive issue. His clearest perceptions, his holiest purposes, his strongest determinations, are followed by the doubts, apprehensions and scruples that torment and distract the disordered mind. While his whole soul is occupied with the idea of revenge, he is ever finding excuses for postponing the moment of execution, constantly turning from his purpose by the merest whim and justifying his conduct by reasons too flimsy to satisfy any but a disordered intellect. His very remark "to put an antic disposition on" on which the theory of Hamlet's insanity being feigned is mainly founded, indicates at most but an indefinite half-formed resolve to accomplish a purpose by simulating a disease that was really overshadowing his spirit in all its fearful reality. The final event, the crowning catastrophe of the piece most aptly finishes the story of Hamlet's irresolution, his vacillation, his forereaching plans, his inadequate performance. The nearest object of his heart—the revenge of his father's wrong—is at last accomplished, but by means of a contrivance he had no part in affecting. Such is the nature of insanity—to talk but not to act, to resolve but never to execute; to support the soundest projects for action by the most imperfect performances.

Hamlet's interview with Ophelia, as described by herself, exhibits in it some of those exquisite touches that always distinguishes the genuine from the false. Here Shakespeare is poetically, dramatically and pathologically true to nature and science. In this interview the indications of derangement are confined to looks, gesture and demeanor. Not a word escapes his lips but a language more expressive than that of the voice betrays the violence of his emotions. We see him in a sudden paroxysm of his disorder that renders him heedless of his personal appearance, obeying the instincts of his affections, and making his accustomed way to her whose love had shed a radiance over his opening prospects. In a tumult of strange and contending emotions he has lost the power of speech, for he had already lost the power to think and feel like himself. He can only gaze into her face as if to penetrate into the mystery that surrounds him and then heaves a convulsive sigh that threatens to end his being. Such is madness and such scenes as this and others that subsequently occurred between Hamlet and Ophelia have happened a thousand times in real life, where the insane lover thrusts himself into the presence of his mistress with pallid face, piteous look, knees knocking each other, hatless head and downgyved stockings, only to frighten and distress her by the painful exhibition of clouded intellect and disordered affections. All this interview may be said to be entirely compatible with the theory of simulation, but when we behold Hamlet and Ophelia in their next interview so remarkable for his outrageous cruelty and harshness of conduct and language we are as little inclined to believe all this to be a well acted sham as we would the wail of a newborn infant or the hectic

flush of a consumptive. Can you see in this pretended madness as Dr. Johnson did, a cause for much mirth? No, you do not laugh nor even smile to see so fair a lady as Ophelia treated in so harsh and unfeeling a way, even for the purpose of simulation. Commentators who hold that Hamlet feigned madness never explain this passage—indeed it cannot be explained by their theories. The most natural theory and the only one that can throw any light on it and which makes it so plain after being once suggested reveals it to all that Hamlet is insane. His conduct in this interview on the theory of insanity is perfectly in accord with the symptoms of this disease. Insanity brings a change over the warmest affections of the heart, whereby the golden chains wrought by love and kindness are utterly dissolved and the forsaken and desolate spirit, though it continues among men, is no longer of them.

THE DARKENED MIND

The fire is burning clear and blithely,
Pleasantly whistles the winter wind;
We are about thee, thy friends and kindred,
On us all flickers the firelight kind;
There thou sittest in thy wonted corner
Lone and awful in thy darkened mind.

There thou sittest; now and then thou moanest;
Thou dost talk with what we cannot see,
Lookest at us with an eye so doubtful,
It doth put us very far from thee;
There thou sittest; we would fain be nigh thee,
But we know that it can never be.

We can touch thee, still we are no nearer;
Gather round thee, still thou are alone;
The wide chasm of reason is between us;
Thou confutest kindness with a moan;
We can speak to thee, and thou canst answer,
Like two prisoners through a wall of stone.
Hardest heart would call it very awful
When thou look'st at us and seëst—O what?
If we move away, thou sittest gazing
With those vague eyes at the selfsame spot,
And thou mutterest, thy hands thou wringest,
Seeing something,—us thou seëst not.

Strange it is that in this open brightness,
Thou shouldst sit in such a narrow cell;
Strange it is that thou shouldst be so lonesome
Where those are who love thee all so well;
Not so much of thee is left among us
As the hum outliving the hushed bell.

—Lowell.

In no instance are these views so strongly confirmed as in this remarkable scene. Notice the rapid transition so characteristic of the insane. First calmness and courtesy followed by torrents of abuse, denial of affection, extravagance and perversity. Then the most tender emotions as she flits before him. And when she returns the gifts she had received from him with a mere intimation that he had ceased to love her, quick as a flash jealousy, the arch-demon of hell with his loyal cohorts, mistrust and anger run riot through the avenues of his brain. Words of gall and bitterness are poured out upon the fair Ophelia whom he loved with more than the love of forty thousand brothers. Feelings of doubt, indifference, hatred, contempt and loathing are thrown like a thousand poisoned arrows into her tender breast; and the tenderness of a lover, the courtesy of a gentleman have been transformed into the bitterest of bitter hatred, perversity and ill treatment. Is there anything laughable in this laceration of feelings and outraging of dignity? Or anything warrantable as a clever sham to hide a real design? How unnatural and unwarrantable it would have been in Hamlet had he been acting a part, is obvious enough from the disposition of critics to regard it as a fault in the author. The fury and extravagance of mania, the moodiness of melancholy he might successfully mimic; but to do violence to his affections, to desecrate and trample upon the idol that he had enshrined in his heart of hearts—this was beyond the power of mimicry.

Shapespeare had closely observed and studied such aberrations from the normal course of the affections and saw in them that kind of poetical interest which master-spirits like his are apt to discern in the highest truths of philosophy. His delineations of insanity unfold many a deep truth in mental pathology. Maudsley says of him: "I am apt to think that we may learn more of the real causation of insanity by the study of a Tragedy like Lear than from all that has yet been written thereupon in the guise of science." Ray says "Few men, I apprehend, are so familiar with those diversities of mental character, that are in any degree, the result of disease, as not to find the sphere of their ideas on this subject somewhat enlarged by the careful study of Shakespeare."

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larly found to be valuable in persuing this subject:

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The Madfolk of Shakespeare. Dr. Kellogg.
Hamlet. Dr. Conolly.
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London Magazine. 1824. Series of articles by William Farren, the first to question the sanity of Hamlet.

—R—

## IN MEMORIAM*

### Committee on Necrology†

Each year as we come together in our annual meeting we miss some familiar faces. We miss the cheery greetings; we miss the welcoming smiles and the hearty handclasps of those of our fellow workers who have passed on during the preceding year, and in former years. They were our brothers and we loved them and looked forward to meeting them with the greatest pleasure. In fact with some of us, the main object of our meeting together was the opportunity of seeing our old friends of many years. They have passed the great divide; we believe they have solved the great mystery of life, and to us who are left we have only our fond memories.

Each year we add to the roll of those who have gone, and 1933 has seen the passing of 68 of our friends and co-workers—eight more than last year.

The average age at death was 69 years. Three were over 90 years; seven from 80 to 90 years—the oldest 98, and the youngest who met a tragic death by drowning, only 26 years. The largest number of deaths occurred in May, 1933, there being eight that month, and October was next with seven.

Causes of death: Chronic heart disease, 12; coronary occlusion or angina pectoris, 8; carcinoma, 6; chronic nephritis, 6; pneumonia, 6; cerebral hemorrhage, 5; diabetes, 4; influenza, 2; tuberculosis, 2; senility, 2; arteriosclerosis, 2; suicide, 2; accidental drowning, 1; mesentery artery obstruction, 1; agranulocytosis, 1; acute pancreatitis, 1; pernicious anemia, 1; encephalitis, 1; kidney stone, 1; septicemia, 1; accidental fall, 1; automobile accident, 1, and unknown, 1.

We are greatly indebted to the JOURNAL editor for his good services in sending us these death notices. We would like to suggest that it would be advisable for the secretaries of all local medical societies to forward death notices promptly to the JOURNAL; this would also be of great assistance to this committee. Last year, the JOURNAL office mailed copies of the JOURNAL containing the necrology report to the various secretaries of county societies with the request that they deliver a copy to the immediate family of each deceased physician; this was a thoughtful courtesy.

The following is the complete list of deceased associates for the past year:

*Anderson, George Malcolm, Lincoln
Bradley, Charles Chitten, Dover
*Bennett, Charles Clifford, Bazine
*Blanke, Theodore F., Garden City
*Boardman, Edgar W., Parsons
*Brewer, Joseph Francis, Minneapolis
Carter, Robert G., Chetopa
Cartwright, Edward Dennis, McPherson
Connor, James A., Waverly
Courtwright, William Thomas, Sedan
Davis, Alexander Glenn, Logan
*DeMott, Chester Wilmont, Independence
Doolittle, Charles Alfred, Atchison
Finlaw, James Parker, Hutchinson
Fisher, David Samuel, Reading
Forney, Chauncey S., Iola
Fowler, Wilber E., Brookville
Funk, Charles Corwin, Smith Center
*Fuson, Frank B., Larned
Goodrich, Cutler Wilkins, Wichita
*Graham, J. Dale, Columbus
*Graybill, J. W., Newton
*Greene, Frank F., Olathe
*Hahn, Milton, Arkansas City
*Hartman, Emil Ernst, Anthony
Hays, Daniel Webster, Ensign
†Herr, Francis Christian, Ottawa
Hewitt, Augustus Eddy, Walnut
*Hissem, Henry Z., Ellsworth
Hobbs, P. Albert, Olathe
Hudson, John Francis, Olathe
Immel, Albert Allison, Welborn
*Kendall, Addison, Great Bend.
*MacGregor, John Alfred, Kansas City
McBride, Joseph Stevenson, Lyons
McCreery, Guy Robert, Hugoton
Menard, Charles E., Paxico
Mitchell, John Charles, Waldo

*Read before the 76th annual meeting of the Kansas Medical Society at Wichita, Kansas, May 9, 10 and 11, 1934.

†J. T. Axtell, M.D., Newton, Chairman; W. F. Bernstorf, M.D., Pratt, and E. E. Morrison, M.D., Great Bend.

*Member, Kansas Medical Society.
†Emeritus member, Kansas Medical Society.

Myers, Thomas William, Wichita
Neal, George Lafayette, Garden City
*Nordstrom, Louis Oliver, Salina
Norris, Granville Ray, Burlington
O'Brien, Daniel S., Beloit
Orelup, Charles Edwin, Lawrence
Owen, Henry Clay, Olathe
*Palmer, Edward M., Wichita
Pettite, George W., Athol
*Pope, Boyd Henderson, Kingman
†Powell, Lewis Morgan, Topeka
Pritchard, William W., Wichita
*Rhodes, James Joseph, Cummings
†Righter, William Henry, Topeka
Robertson, Orrin, Wichita
*Robinson, Ole E., Independence
*Roff, Ocran W., Newton
*Sawhill, William F., Concordia
*Scarborough, Herbert Virgil, Lyons
*Scollick, Percy A., Kansas City
*Scott, Walter Waverly, Kensington
*Smith, Derostus E., Kansas City
Somers, Ira Clinton, Chanute
Steele, Samuel, Chanute
Terrill, Julian Oscar, Wichita
Tihen, Herman Bernard, Andale
Tinney, Grace G., Norton
Walker, Arthur E., Anthony
Wesley, Parker Fiske, Haviland
Wilson, William Preston, Onaga

Let us stand for a moment with bowed heads in honor of our departed brothers.

## CASE REPORT

### Appendectomy for Undiagnosed Gonorrhea—Needless Operation on a 14 Year Old Boy

MAURICE A. WALKER, M.D.,* and
LAWRENCE E. GROWNEY, M.D.*
Kansas City, Kansas

In the male, gonorrheal infection of the urogenital tract only rarely causes symptoms suggesting intra-abdominal disease. Careful examination of the patient, regardless of his age, should result in avoiding an error in diagnosis and subsequent unnecessary operation such as we have to report.

REPORT OF CASE

On January 28, 1934, a white boy, 14 years old, was taken by his father to his family physician about 24 hours after he first complained of pain in the abdomen. Because there was some tenderness in the right lower abdomen, the physician had him taken to Providence Hospital for further study. His temperature was 101.6° F.; pulse rate, 80; and respiratory rate, 28. The urine contained a few pus cells. There were, in each cubic millimeter of blood, 13,800 leukocytes, 82 per cent of which were polymorphonuclear neutrophiles. A diagnosis of acute appendicitis was made, and preparations were begun for operation. It was then discovered that the patient was indigent.

To one of us (L.E.G.), as county physician, the superintendent of the hospital described by phone the circumstances of the case, the symptoms of the patient, and the diagnosis of the physician with recommendation for immediate operation. Since the situation seemed clearly defined, we went to the hospital and, without further examination, began the proposed operation.

Spinal anesthesia was used. The peritoneal cavity contained no free fluid. There was considerable redness of the peritoneum, most noticeable in the right iliac fossa. The appendix, however, was otherwise normal in size and appearance; after removal, histologic examination showed slight acute periappendicitis, as evidenced by the presence of polymorphonuclear leukocytes in engorged vessels beneath the serosa. The remainder of the peritoneal cavity was examined by inspection and palpation. Other pathologic changes were not found.

So far as the operation was concerned, the patient had an uneventful convalescence. The second day, however, he complained of a painful swelling in the right scrotum which, when examined, was typical of acute epididymitis. In a smear of a creamy discharge that could be milked out of his urethra, there were many pus cells; numerous extra-cellular and intra-cellular gram-negative diplococci were present. The boy then admitted that the swelling had been present from the day before he was first seen by his physician, and that he had acquired the infection in the usual manner.

*Department of Surgery, University of Kansas School of Medicine.

## UNIVERSITY OF KANSAS MEDICAL SCHOOL CLINIC

### Meningitis Following Spinal Anesthesia

THOMAS G. ORR, M.D.,* and
MERVIN J. RUMOLD, M.D.*

Meningitis, as a complication of spinal anesthesia, is quite rare. The following case is reported because of its rarity and because it illustrates one of the possible dangers of this method of anesthesia.

R.J.N., white male, aged 31, was admitted to the University of Kansas Hospital on March 9, 1933. He gave a history of injury to the right internal semilunar cartilage ten days before admision. The history and physical findings were typical of an injured cartilage and operation was recommended. He had a slight bronchitis which delayed operation for six days. He was operated upon on March 16, 1933, and the right internal semilunar cartilage was removed; spinal anesthesia was used. One hundred milligrams of novocaine dissolved in three cubic centimeters of spinal fluid were injected slowly into the third lumbar interspace in the routine manner used in this hospital. Three minutes before the anesthetic was given, and ten minutes before the operation was started, a three-fourths grain dose of ephedrine was given by hypodermic. The patient's condition during the operation was uneventful. The blood pressure rose from 150 to 182 and dropped to 167 when the operation was finished. The pulse ranged between 72 and 95. Immediate recovery from the anesthetic was normal. The following day he complained of headache and severe pain at the site of the operation. His temperature was 100.8° and he was very restless. The second day he was semi-comatose and was roused with difficulty. His headache was severe. His face was flushed and covered with perspiration. His pulse was 106. The neck muscles were quite rigid. There was hyperesthesia over the entire body. The temperature per rectum was 104°. The Kernig sign was positive. At this time, he presented a typical picture of meningitis. At 3:00 p.m. of the second day, he appeared much worse. A spinal puncture was done and cloudy fluid was obtained. About 40 cubic centimeters of spinal fluid were withdrawn, and without waiting for a microscopic report, 15 cubic centimeters of anti-meningococcic serum were given. At 1:00 a.m. the third day, a second spinal puncture was done which was repeated a third time at 3:30 p.m. A smear was made from this spinal fluid which did not reveal any organisms. A culture made at the first puncture showed short chain, gram positive micrococci which were identified as non-hemolytic streptococci from five different culture tubes. The blood count at this time showed a normal red blood count and hemoglobin. The white blood count was 22,350 with 90 per cent polymorphonuclears. The urine showed a trace of albumin. The third day following the operation he appeared to be improved. The temperature was 99.2° and his pulse was 80. The blood pressure was 180/90. He was easily aroused and was interested in surroundings. On the fourth day, he still complained of much pain in the back of his head, although his general condition had markedly improved. Two spinal punctures were done on the fourth day and 80 cubic centimeters of fluid were removed. Anti-meningococcic serum was repeated at each puncture. During the fifth and sixth postoperative days, the temperature ranged from 99° to 101°. It dropped to normal on the seventh postoperative day with only a slight rise above normal thereafter. The headaches persisted for ten days following the operation. During this time, the rigidity of his neck muscles gradually decreased. He was up in a wheel chair on the 14th postoperative day and left the hospital on the 16th postoperative day. His wound was healed and his meningeal symptoms had entirely disappeared.

#### DISCUSSION

The case here reported showed the typical signs and symptoms of acute meningitis. The type of meningitis not being known when the first lumbar puncture was done, anti-meningococcic serum was given.

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The result of this treatment seemed to warrant the further use of the serum in spite of the discovery of the streptococcus in cultures made from the spinal fluid. Smears of the centrifuged spinal fluid at the second puncture did not show any organisms, although repeated observations were made. The diagnosis of streptococcic meningitis might be questioned because of failure to find the micro-organisms in smears. Cultures were made and found positive in five separate tubes after the first puncture, but all cultures were negative after the first dose of anti-meningococcic serum.

The source of the streptococcic infection is, of course, not known. It may have been introduced by the spinal puncture needle or might have been in the blood stream localizing at a point of lowered resistance in the meninges after the introduction of the anesthetic. The patient had just recovered from an acute respiratory infection. He also had extensive infection about his teeth. Reynolds and Wilson[1] call attention to experimental work by Ayer and Felton showing that meningitis may be produced in infected animals by the mere withdrawal of spinal fluid. Hammer[2] also refers to similar experimental results by Wegeforth and Latham.

The rarity of meningitis as a sequel to spinal anesthesia is evidenced by a report of Babcock[3] who collected 250,895 cases of spinal anesthesia with 95 deaths in which meningitis is not mentioned as a lethal factor. Hurxthal[4] discusses sterile meningitis following lumbar puncture and records a case of streptococcus meningitis seen in consultation which recovered after repeated cisternal and lumbar drainage plus saline irrigations. Hammer records a case of suppurative meningitis causing death 35 days following diagnostic lumbar puncture. In an analysis of 120,000 cases of spinal anesthesia given by 22 Roumanian surgeons Angelesco and Tzovaru[5] found five deaths due to meningitis (3 septic and 2 puriform aseptic).

Reynolds and Wilson have discussed aseptic meningitis following diagnostic lumbar puncture recording three cases with recovery. Their patients all had fever, stupor, stiff neck, Kernig's sign, delirium and a pronounced increase in cells in the spinal fluid without discoverable organisms by smear or culture. There is abundant evidence in the literature that spinal anesthesia may often cause irritation of the meninges, ganglion cells and nerve fibers, resulting not infrequently in neuritis or paralysis[6].

That one may not despair of life in an individual with streptococcal meningitis is emphasized by Rennie[7] who reports a recovery from non-hemolytic streptococcal infection, and collects 46 cases with recovery from the literature. Rothschild[8] noted two reported cures and records a third recovery following non-hemolytic streptococcus meningitis.

The treatments that have been generally used are ventricular, cisternal and spinal punctures, saline irrigations, anti-streptococcic serum and anti-meningococcic serum plus sedatives and general supportive measures.

## SUMMARY

A case of non-hemolytic streptococcus meningitis with recovery following spinal anesthesia is recorded.

True meningitis following spinal anesthesia is rare. Aseptic meningitis as a result of lumbar puncture is apparently a definite clinical entity. There is much recorded evidence that spinal anesthesia frequently causes irritation of the central nervous system which may result in neuritis or paralysis.

Streptococcal meningitis must not be considered incurable.

The danger of meningitis from spinal puncture is probably greatly increased in patients having acute infections.

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## TUBERCULOSIS ABSTRACTS

Furnished through the courtesy of
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Public education has removed most of the obstacles in the way of effective control of tuberculosis. Yet in some respects public education has fallen short of the mark. It has not, for example, brought to the clinic or the doctor's office all persons who have tuberculosis. This in no wise discredits the effort made to persuade people to "let the doctor decide." It points rather to the need of case-finding methods not solely dependent on the initiative of the patient. J. Burns Amberson outlined at the Annual Meeting of the National Tuberculosis Association some principles of case-finding, abstracts of which are here presented.

### Case-Finding Methods

Case-finding methods predicated on public education and persuasion to consult the doctor have these weaknesses:

a) Two-thirds to nine-tenths of patients with early symptoms of tuberculosis have no definite or alarming symptoms. Chronic cough, expectoration, blood spitting and weakness usually mean that the disease is advanced. "Faint glimmering warnings do not bring us up short and send us running for news and succor."

b) The physician will miss detection of a great many early lesions by physical examination unless he also uses the *x*-ray.

c) The tendency to postpone treatment until the tubercle bacillus is found in the sputum is dangerous for by that time the lesion probably has entered the second stage with cavity formation.

d) Severity of symptoms is not necessarily a measure of rapidity of spread of the lesions. Particularly in adolescents and young adults serious extensions may occur in a few days.

#### FACILITIES AND METHODS NECESSARY

Present day case-finding machinery consists of tuberculin testing, *x*-ray (radiography and fluoroscopy), physical examination, laboratory testing and accessory instruments for differential diagnosis. Since it is not yet possible to examine every member of the population it is desirable to select groups of people who are accessible for examination and in whom tuberculosis is likely to be prevalent. These include: contacts, school children, industrial groups, groups aided by public funds, university students, nurses and army recruits.

In selecting groups to be examined age should be given great weight. Lesions of the childhood type may easily be discovered in children in the age period 2 to 15 years, but most of these are small and tend to heal spontaneously. It is probably more to the point to direct attention to the adolescent high school group. The incidence of serious tuberculosis rises abruptly in adolescence and early adult life, especially among girls. Discovery of the disease in these groups followed by prompt treatment yields excellent results. Fellows, who examined large numbers of employees of the Metropolitan Life Insurance Company, reports that among the cases found who were treated and returned to work the relapse rate during seven years has been only 8 per cent.

Race also should be taken into account. The Negro, while he is no more likely to develop tuberculosis than the Caucasian, usually becomes more seriously sick and dies if it does develop. And since the disease in the Negro usually runs a more acute course the dissemination of huge numbers of tubercle bacilli is more likely.

Physician's patients constitute another important group for finding cases of tuberculosis. "The day will come when most physicians will have fluoroscopes in their offices, and will be sufficiently trained to use these, not only as an essential aid in the detection of early tuberculosis, but also as a means of perfecting diagnostic accuracy in many other conditions. The physician will become conscious of the great advantage of viewing the chests of practically all his patients. He will be especially diligent with the susceptible groups mentioned and with other groups such as the syphilitics, the young diabetics, and the silicotics, all of whom are known to have a high incidence of tuberculosis. He will have in mind experiences like that of Fellows, who discovers two-thirds of his cases on routine examination and only one-third because the patients come in

with symptoms, and who finds diagnostic signs on physical examination in only about one-half of those with definite lesions."

*Some Case-Finding Principles of Practical Significance, J. Burns Amberson, Transactions, Nat. Tuber. Assn.*, 1934.

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## CANCER SURVEY OF KANSAS

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(Continued from August Journal)

### ORGANIZED CANCER SERVICE

Surveys made by the American Society for the Control of Cancer have shown that the average general hospital does not have, nor can it be expected to have, adequate facilities for the diagnosis and treatment of malignant disease. The small number of such patients (2 to 3 per cent) cared for, the cost of necessary equipment, especially deep therapy and radium, the absence of staff members with training and experience needed to insure competency in diagnosis and treatment, all suggest that the hope for an improved service to these patients rests in the development of adequate facilities in a few institutions where satisfactory work can be done.

In cooperation with the American Society for the Control of Cancer, the American College of Surgeons, through its Committee on Treatment of Malignant Diseases, has outlined the following types of institutions for the treatment of cancer:

1. Cancer institutes.
2. Cancer hospitals.
3. Cancer clinics in general hospitals.
   a. Complete cancer clinics.
   b. Diagnostic cancer clinics.

The quotations that follow, unless otherwise noted, are taken from the pamphlet of the American College of Surgeons entitled "Organization of Service for the Diagnosis and Treatment of Cancer," June 1931.

*Cancer Institutes:* "A cancer institute is an organization equipped with hospitals and laboratories especially organized and conducted for carrying on research in relation to the nature of cancer and its diagnosis and treatment as well as for the clinical diagnosis and treatment of actual cancer patients. Institutes of this nature require very considerable endowments or such generous annual appropriations as can be obtained, usually only from the state or national government. They are undoubtedly the most effective method of dealing with the cancer problem, but their cost is such that their number will inevitably be somewhat restricted."

*Cancer Hospitals:* Cancer hospitals are devoted exclusively to diagnosis and treatment of cancer and allied diseases. They differ from cancer institutes in that major emphasis is placed upon clinical work rather than upon research. At the present time not more than twelve such hospitals are found in this country.

"Such organizations require a very considerable financial support either by endowment or by annual appropriation. Hospitals of this nature may be supported by the State Department of Health, as in Massachusetts; by state universities, as is the Cancer Institute of the University of Minnesota; or partly by endowment and partly by annual subscription, as in the case of those organized under private enterprise. Institutions of this nature are coming into existence as special departments of existing hospitals in many places."

*Cancer Clinics in General Hospitals:* "Where funds sufficient for the maintenance of cancer institutes, research laboratories, or special cancer hospitals are not available, the demand for improved service for cancer cases has resulted in the organization of special cancer clinics in existing general hospitals and of cancer diagnostic clinics in many places. The reason for the organization of these special cancer clinics is primarily the fact that the field of cancer diagnosis and cancer treatment has developed so widely in the past few years that only by the organization of a group of representatives of the different departments of a hospital can the full resources available at the present day for the treatment of cancer be made accessible to the individual patient. Many general hospitals are equipped with the material and apparatus needed for the treatment of cancer, including high voltage *x*-ray, and a sufficient amount of radium, but a separate organization is required to make this equipment available for the cancer patient and to secure the necessary consultation and cooperation from the different members of the hospital staff who are interested and competent in this field."

*Cancer Diagnostic Clinics:* Hospitals unable to meet fully the requirements for a cancer service as outlined previously but which have staff members interested in cancer and a laboratory with equipment and personnel able to interpret the histological findings may offer a cancer diagnostic service of value to the community.

Cancer diagnostic clinics may be organized in smaller communities where modern x-ray equipment and an adequate supply of radium is lacking. The object in establishing such a clinic is to provide better diagnoses upon cancer patients, to furnish a group judgment concerning the proper means of therapy to be employed, and to educate the medical public concerning this important group of diseases. Medical men in the community should be encouraged to bring patients to such a clinic, accompanied by a complete record of the history and physical examination. When a diagnosis shall have been reached and a line of treatment suggested, the surgeon or physician will be free to continue the care of his own patient as he may see fit.

*Field Representative, American Society for the Control of Cancer, New York, N. Y. Clarence Cook Little, Sc.D., Managing Director.

*Minimum Standard:* The American College of Surgeons* has promulgated minimum standards for cancer clinics in general hospitals. These standards can be put into effect in whole or in part as local conditions indicate. They are as follows:

"1. Organization—There shall be a definite organization of the service, and it shall include an executive officer and representatives of all the departments of the hospital which are concerned in the diagnosis and treatment of cancer. The services of a secretary and of a social service worker shall be available.

"2. Conferences—As an essential feature of the service, there shall be regular conferences or consultations at which the diagnosis and treatment of the individual cases are discussed by all members of the clinic who are concerned with the case.

"3. Patients—Reference to the cancer clinic of all patients in whom the diagnosis and treatment of cancer is to be considered shall be either voluntary or obligatory in accordance with the vote of the medical staff or of the governing board of the hospital.

"4. Equipment—In addition to the diagnostic and therapeutic surgical equipment which is required in every approved general hospital, there shall be available an apparatus for $x$-ray therapy of an effectiveness which is generally agreed upon as adequate, and an amount of radium sufficient to insure effective treatment.

"5. Records—In addition to the records which are required in every approved general hospital, there shall be additional records of:

(a) The details of the history and of the examination for cancer in different regions of the body, such as are indicated on the form records which are recommended by the Committee on the Treatment of Malignant Diseases, American College of Surgeons.

(b) The details of the treatment by radium or $x$-ray as indicated on the form records which are recommended by the Committee on the Treatment of Malignant Diseases, American College of Surgeons.

(c) Periodic examinations at intervals for a period of at least five years following treatment.

"6. Treatment—The treatment of cancer patients shall be entrusted to the members of the staff of the cancer clinic except in cases in which adequate treatment in accordance with the collective recommendation of the staff of the cancer clinic can be procured otherwise."

*Surgery, Gynecology, and Obstetrics, June, 1931. Also published as a separate pamphlet by the College.

A discussion of some of the problems connected with an improved service for cancer patients, especially with some of the personnel problems involved, may be in order.

### PATHOLOGIST

While it does not come within the scope of this report to evaluate the training and ability of pathologists properly to interpret cancer tissues, it may be well to point out that special training and considerable experience are necessary to competency in this field. While the preparation and staining of tissue may be carried out by a technician, the best interests of the patient may be served only when the interpretation of that tissue is made by a physician with adequate training and experience in this special field.

## CHART OF ORGANIZATION FOR CANCER SERVICE IN GENERAL HOSPITALS

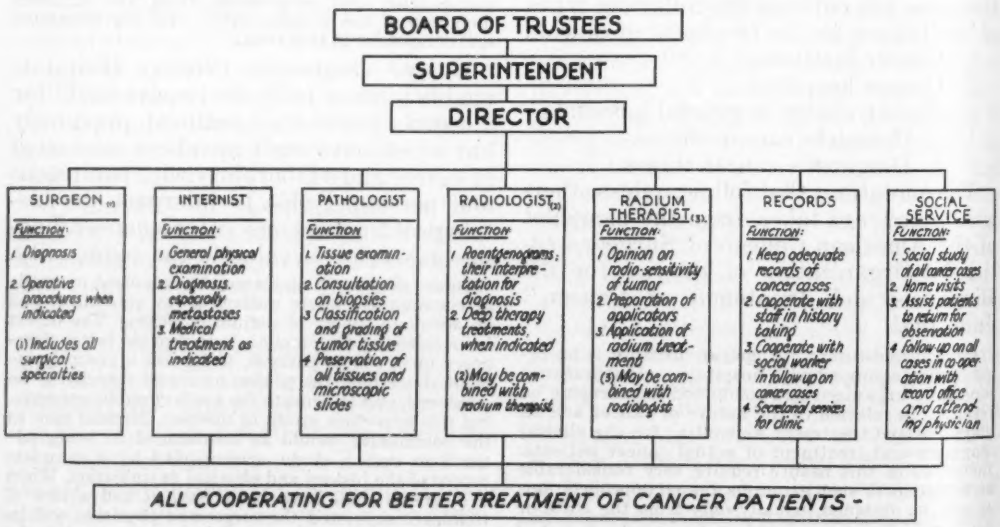
BOARD OF TRUSTEES
SUPERINTENDENT
DIRECTOR
SURGEON (1)
Function:
1. Diagnosis
2. Operative procedures when indicated
(1) Includes all surgical specialties
INTERNIST
Function:
1. General physical examination
2. Diagnosis, especially metastases
3. Medical treatment as indicated
PATHOLOGIST
Function
1. Tissue examination
2. Consultation on biopsies
3. Classification and grading of tumor tissue
4. Preservation of all tissues and microscopic slides
RADIOLOGIST (2)
Function
1. Roentgenograms; their interpretation for diagnosis
2. Deep therapy treatments, when indicated
(2) May be combined with radium therapist
RADIUM THERAPIST (3)
Function:
1. Opinion on radio-sensitivity of tumor
2. Preparation of applicators
3. Application of radium treatment
(3) May be combined with radiologist
RECORDS
Function:
1. Keep adequate records of cancer cases
2. Cooperate with staff in history taking
3. Cooperate with social worker in follow up on cancer cases
4. Secretarial services for clinic
SOCIAL SERVICE
Function:
1. Social study of all cancer cases
2. Home visits
3. Assist patients to return for observation
4. Follow up on all cases in co-operation with record office and attending physician
ALL COOPERATING FOR BETTER TREATMENT OF CANCER PATIENTS -

FIG. 12

The training and experience necessary for accurate interpretation of tumor tissue is much beyond that requisite for many other branches of clinical pathology, and the physician who equips himself for this form of medical practice should be granted better recognition in the staff organization that he now receives in many hospitals. As he is unable to share in fees collected by the surgeon and diagnostician, although a major responsibility for proper diagnosis and treatment often rests on him, he should receive remuneration in keeping with these responsibilities. The pathologist is one of the key men in an adequate diagnostic cancer service and men competent in this field cannot be expected to enter it unless their position is recognized and their remuneration more in keeping with their ability and responsibility than now prevails in many cases.

The pathologist to be capable in the diagnosis of tumor tissue, must at times move out of the laboratory and into the ward and operating room. He should see the patient at the bedside and have a voice in the decision on biopsy and where one should be taken if indicated. If biopsy is to follow exploratory incision, he should select the tissue for examination and by frozen section tell the surgeon just what he is dealing with so that indicated procedures can be effectively carried out. Chemical analysis of secretions and excretions often throws much diagnostic light on the character of the tumor. The pathologist must be able to interpret the physiologic, chemical, physical, and clinical observations in addition to the microscopic picture of the stained specimen. If he is confined to his laboratory seeing only such tissues as are submitted to him, he cannot do justice to his work or to the patient. His interpretations are all the more valuable when he has the added clinical experience and information that a consultation on these cases would give.

The attempt to develop a special cancer service in hospitals without laboratory equipment for tissue diagnosis or personnel to interpret such examinations would be a procedure of doubtful value. A false sense of security in the reliability of diagnostic procedures would be engendered that would make for delay in securing adequate treatment in many cases.

The qualifications of a clinical pathologist are given in the Journal of the American Medical Association, October 14, 1933, page 1233, as:

**One who is a graduate in medicine having had satisfactory training and experience in pathology, chemistry, bacteriology, or other allied subjects for at least three years subsequent to graduation, who is in good standing and has been duly licensed to practice medicine.**

**The pathologist shall be on a full or part-time basis with a laboratory for the practical application of one or more of the fundamental sciences by the use of specialized apparatus, equipment and methods, for the purpose of ascertaining the presence, nature, source, and progress of disease in the human body. He shall devote the major part of his time to work in this field.**

**The pathologist may make diagnoses only when he is a licensed graduate of medicine, has had satisfactory training and experience in pathology for at least three years subsequent to graduation from medical college, is reasonably familiar with the manifestations of disease, and is competent to make reliable reports.**

ROENTGENOLOGIST

There is a wide difference of opinion among roentgenologists as to the optimum dosage of *x*-ray in cancer therapy. Some hold that voltages of 150,000 or less are as penetrating, if applied over a sufficient length of time, as voltages of 200,000 or more. It is realized that this question is still undecided, but undoubtedly the trend is toward higher voltages and heavier filtration. The majority of hospitals devoted exclusively to treatment of cancer and allied diseases, as well as the minimum standards of the American College of Surgeons for the treatment of malignant diseases, have set 200,000 volts as a minimum for acceptable deep therapy. Voltages of 700,000 and more have been installed in New York, Detroit, Chicago; Lincoln, Nebraska, Seattle, and Los Angeles, and equipment of still higher voltages is reported under construction or projected.

Of equal importance with installation of deep therapy equipment is the frequent calibration of the tubes to see that the indicated voltage is being delivered. Such measuring devices should be attached at all times to such equipment, but where this is not feasible, the output of the tube should be measured at regular intervals.

Dangers arising from the use of this highly specialized form of therapy by physicians without adequate training in either the physics or therapeutics of its application should be emphasized. A powerful force, about which much remains to be

known, is brought into play when deep therapy treatments are given. Not only should the operator be thoroughly familiar with the general physical and therapeutic reactions of this force upon the human system, but he should appreciate differences in reaction that take place in different individuals. The use of such equipment for additional revenue, without a thorough knowledge of its physiological effects, cannot be defended on any grounds of medical science. The welfare of the patient must be held paramount to all other considerations entering into his treatment and the use of *x*-ray for any purpose does much to discredit the legitimate use of this form of therapy in the hands of capable physicians.

The qualifications of a roentgenologist are given in the Journal of the American Medical Association, February 11, 1933, page 414, as follows:

**The candidate shall be a graduate of a medical school that is approved by the Council on Medical Education and Hospitals and shall be licensed to practice medicine in the state in which his department is located. He shall also have had special training, such as is approved by the Council, in radiology, roentgenology or radium therapy at an acceptable school—preceptorship, hospital or clinic, department of radiology, roentgenology or radium therapy—for a period of at least three years, or, in lieu of such training, shall have had a minimum of five years' experience in the exclusive practice of radiology, roentgenology or radium therapy. He must be a man of good standing in the medical profession, and particularly among those specializing in radiology. He shall either be on a full-time basis or have definite hours of attendance at the department, such hours to be ample to insure the element of medical consultation in every examination or treatment.**

In its Hospital Standardization Report for 1933, page 29, the American College of Surgeons lists the qualifications of a roentgenologist as follows:

**"The director of the *x*-ray department must be a graduate physician licensed to practice medicine, ethical, in good professional standing, and having had special training in radiology. He should be responsible not only for general supervision of the department but for interpretation of all findings. Radiotherapy must also be under supervision of a skilled physician. . . . . At all times the utmost cooperation between the radiologist and the medical staff is desirable. The former should not only be present at clinical conferences, but should also take an active part in the discussion since his contribution may be of distinct value in furthering the education of the staff."**

### RADIUM THERAPIST

Radium is one of the newest and most powerful agents known to medical science and its possibilities for harm when used by physicians without adequate training and experience are so great that its application to human patients should be surrounded by all the safeguards medical science can suggest. Objections raised to the use of radium are dependent largely on poor results obtained in the hands of inexperienced users. Failure by the profession in general to use this agent is more to be commended than criticised, and only brings out in marked contrast the unsatisfactory results obtained by physicians who use radium occasionally without any preparation or experience. As the proper use of radium and radon requires a high degree of skill and training and a special knowledge of their effects on human tissue, the welfare of the patient usually is better safeguarded by accepted surgical procedures than by irradiation at the hands of untrained physicians.

The use of rented radium by untrained physicians is a procedure for which no commendation can be offered. More often than not, such physicians have had no special training in the use of radium and the patient will receive little lasting benefit from such treatment. The mere possession or use of radium is no more a criterion of competency in that field than would the possession of a set of surgical instruments indicate competence as a surgeon.

Safeguarding the use of roentgen rays and radium so that the public may in time know that those who offer such treatment are reasonably competent is being given serious consideration by national organizations in the radiological field. Plans are being perfected whereby physicians, wishing to be recognized as specialists in this field, will undergo examinations by a board of qualified radiologists and, if their competency is established, will be given certificates entitling them to be classed as specialists in this particular field.*

Medical publications could render a distinct service in the control of this problem by refusing advertisements of organizations offering to rent radium indiscriminately. As the public becomes better informed regarding the necessity for ade-

*Since this survey was completed the first examinations for licenses as specialists in radiology have been held. Such examinations will be held regularly hereafter.

quate experience on the part of those offering irradiation therapy, and as the medical profession realizes the intricate problems surrounding this form of therapy, present abuses will be eliminated and an improved service rendered to cancer patients.

As far as known, no hospital or cancer institute in this country having radium or producing radon will permit its use by other than qualified members of their own staffs.

In the Province of Saskatchewan, Canada, radium has been made available by legislative appropriation. Its use is controlled by a commission of three physicians and it can be used only under the personal direction of the radiotherapist on the commission. Physicians must bring or refer their cancer patients to the clinics maintained by the commission. Regulations governing the care of radium supplies, issued by the Saskatchewan Cancer Commission provide that

17. Where a medical practitioner desires the use of radiotherapy on a patient, the equipment of the Commission may be made available under the following conditions: The case shall be submitted to the consultative diagnostic clinic, and, (a) its recommendations for the use of radiotherapy obtained; (b) the radium to be applied under the direction of the radiotherapist of the clinic; and (c) the fees for the use of the radium to be paid, as prescribed by the Commission.

SOCIAL SERVICE

Social service work is of primary importance in an acceptable cancer service. It is most important that all cancer cases be followed carefully over a long period subsequent to their treatment either by private physicians or by hospitals. At the present time too little is known about the health of cancer patients after treatment, and as a knowledge of their subsequent condition is the only practical criterion of the effectiveness of their treatment, it is essential that facilities be provided for obtaining periodic information regarding such cases.

This work can best be done by a well trained and experienced medical social worker who will not only relieve the physician of a responsibility which at times is most difficult for him to discharge without seeming to be too solicitous about his patients, but will also provide him with information essential to the improvement of his practice and will assist in the gathering of data most necessary to a further and better understanding of present methods of diagnosis and treatment of cancer patients.

The functions of a social service department in a cancer service may be summarized as follows:

1. To the patient and his family make clear just what is involved in the plan of treatment and assist when needed in carrying out the plan. Study social and economic problems involved and suggest a plan for their solution. Stimulate the morale of patients and encourage them to continue under observation and treatment.
2. Inform the physician in charge of the case of the social and economic problems involved and the personality factors that should be considered in treating the case.
3. To the community, the cancer service, its policies and procedures, can be presented in an understanding manner as can also the needs of the patients being cared for. The relationship of the community to the entire cancer problem can be exemplified at times by a single case involving the attention of various medical and social agencies.

In the absence of medically trained social workers, public health nurses or visiting nurses can often obtain the necessary information regarding cancer patients. In the course of their daily work they may discover information of value to physicians and hospitals having an interest in these cases.

Some authorities say that no attempt should be made to organize a special tumor service until trained social workers are available. In the Report of the Royal Commission on the Use of Radium and $x$-Rays in the Treatment of the Sick of the Province of Ontario, it is stated on page 102

That in the successful treatment and control of cancer, it is essential that every patient be closely followed up so that he or she may be induced to return for observation at regular intervals. For this purpose every centre should possess an active Social Service. The duties of a Social Service should include not only the keeping track of patients and bringing them to the treatment centre, but also the supervision of home conditions, and the securing for such cases of moral, and, if required, financial aid.

Again, on page 106 of this same report the Commission recommends

That, in connexion with every centre, the most careful and exact records of cases be kept, and that a Social Service be maintained for the purpose of "following up" all patients.

RECORDS

In addition to the professional facilities suggested for specialized cancer services in general hospitals, adequate provision should be made for recording not only the

regular data found in all well kept hospital records, but additional information regarding cancer. To be of the most value, such records should be comparable for all hospitals so that an increasing volume of accurate information about cancer gradually will develop. The American College of Surgeons has formulated a cancer record that it will gladly place at the disposal of any hospital. This blank offers a uniform method of record keeping and may well form the basis of the record adopted in an organized cancer service.

The record clerk might well act as clinic clerk while patients are being examined. By so doing, a clearer insight can be obtained of the patient's problem which should result in a more comprehensive recording of all essential data bearing on the case. The record department should work in close cooperation with the social service department in coordinating and analyzing information for the clinic staff and attending physician.

The accompanying chart indicates some of the functions and relationships of various elements in an organized cancer service. The ultimate type of organization will depend upon the needs of each group.

CANCER PREVENTION AND CONTROL IN KANSAS

The following facts bearing on the cancer problem in Kansas have been developed in this survey.

While the general death rate of the state is declining in keeping with other sections of the United States, the cancer death rate is rising. The increase in cancer death rate during the last 20 years has been 82 per cent while the increase in the population of the state during this same period has been 10.9 per cent.

Analysis of cancer admissions to the general hospitals of the state of 25 beds and over shows that 1,399 cancer patients were hospitalized during 1932. Of this number 261 died and 88 came to autopsy. Fifty-three, or 60 per cent. of the cancer autopsies were performed in Kansas City hospitals.

All general hospitals in Kansas admit cancer patients although in two or three such patients, when possible, were referred elsewhere for treatment.

Fifteen hospitals reporting in this survey are without laboratory facilities for tissue diagnosis. In many of these hospitals only such cases are examined by outside laboratories as the physician in charge indicates. Medically trained pathologists, devoting all or a major portion of their time to the work, were found in Chanute, Kansas City, Salina, Topeka, and Wichita, while a nonmedical pathologist in Hutchinson examines tissues for several hospitals in that vicinity. While no pathologist, as such, was found at the Halstead Hospital, all tissues are examined by the chief surgeon and patients have an acceptable service in this regard. Several of the smaller hospitals of the state refer selected tissues to pathologists in the cities mentioned above.

The latest list of approved clinical pathologists in Kansas published in the Journal of the American Medical Association, October 14, 1933, contains but four names, one each in Kansas City, Salina, Topeka, and Wichita. Eight other names appear in Kansas City, Missouri. This lack of pathologists in hospitals of the state undoubtedly explains in large part the unsatisfactory laboratory and autopsy situation and the Kansas Medical Society might well give serious attention to this situation.

If all tissues now discarded were examined, undoubtedly some diagnoses and treatments would be changed to the benefit of the patient. Many hospitals reported that present economic conditions would not permit routine examination of all removed tissues and they were obliged to use their best judgment in selecting tissues to be sent away for examination.

With full appreciation of the present financial situation throughout the state, it is felt that no commendation can be offered those hospitals and surgeons who summarily discard all removed tissues without having such tissues examined by a competent pathologist. In such cases the interests of the patient might be better served if indicated surgical procedures were deferred, barring emergencies, until the patient could reach an institution where adequate laboratory facilities are available. As an alternative, arrangements might be required of all hospitals for the examination of removed tissues in acceptable laboratories with reports returned at the earliest possible moment.

(Continued on Page 354)

# THE JOURNAL
of the
# Kansas Medical Society

EARLE G. BROWN, M.D. - - - - Editor

ASSOCIATE EDITORS—R. T. NICHOLS, L. F. BARNEY, E. C. DUNCAN, O. P. DAVIS, J. T. AXTELL, H. N. TIHEN, C. C. STILLMAN, ALFRED O'DONNELL, H. O. HARDESTY, C. D. BLAKE, C. H. EWING, N. E. MELENCAMP.

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## *EDITORIAL*

### W. M. MILLS ELECTED EDITOR

At the June 29 meeting of the Executive Secretary Committee held in Topeka, Dr. W. M. Mills was named as editor of the JOURNAL. Due to the fact that he was out of the state at the time, announcement was withheld until he could be notified by the committee. The formal announcement will be found in the special committee report by Dr. Tihen.

The retiring editor has served slightly more than two and one-half years. He welcomes the opportunity to relinquish the JOURNAL management to Dr. Mills.

Dr. Mills will be assisted by an editorial board to be selected by the Executive Secretary Committee. He deserves the sincere cooperation of every member of the Kansas Medical Society.

### MENTAL HEALTH

The mental health of the community has become one of the major problems facing the medical profession and yet it receives scant attention as compared to general medical and surgical problems. The following facts indicate the immensity of this problem:

The average daily population of nervous and mental hospitals is 434,557 against 373,000 in all other hospitals in the United States.

The average percentage of occupied beds in mental hospitals is 101.7 per cent as against an average of 80.4 per cent in all other hospitals.

There were 173 million patient days in mental hospitals in 1933 as compared to 85 million in general hospitals, 22 million in tuberculosis sanatoriums, and around 16 million in other special hospitals.

The average daily population in mental hospitals increased from 395,407 in 1929 to 434,557 in 1932.

Nervous and mental hospitals contain 47.7 per cent of all hospital beds.

There are 347.6 persons per 100,000 of the general population in nervous and mental hospitals.

In 1932, 135,286 patients entered nervous and mental hospitals (111,415 new patients and 23,871 readmissions).

But these startling figures do not nearly represent the amount of mental ill health. In a recent report of a series of questionnaires to general practitioners Ziegler found that between 25 and 40 per cent of all patients coming to the general practitioner failed to show any organic physical disease. Many practitioners, surgeons, internists, and even men in special fields have indicated to me that these figures were lower than the estimates of their own practice. And when to these facts we add

the large number of alcoholic and drug addictions, the psychopathic personalities that never come to the doctor, the mass of feebleminded individuals, the great group of ne'er-do-wells, the disturbers of the social order, and other ill-defined groups, we have probably twice or three times the number of patients admitted to the nervous and mental hospitals.

The great prevalence of mental ill health is a stupendous problem; the actual cost to the community in money is a very major item; the loss of the individuals and the damage they may produce is probably a much larger figure not even estimable in dollars and cents.

Is there a remedy? Is there any hope? Can the medical profession do anything about it more than it is doing? The answer is yes. First, the installation in our medical schools of more adequate courses in medical psychology and psychiatry so that the doctor may recognize more clearly and handle more intelligently those illnesses in which he doesn't find an indication for pills or ultra-violet light or surgery. Second, the education of the medical profession to the recognition of the psychological factors in illness, both mental and physical. Third, the correction of many mistaken ideas about mental health held by a few of the profession and most of the laity, such as that mental illness is the result of sin or meanness or perversity, that mental illness is a disgrace, that a nervous breakdown is a disease of the nerves, and similar misconceptions. Fourth, the spread of mental hygiene—the science of the prevention of mental ill health—which recognizes that mental health is obtainable and the failure to have it is often a matter of ignorance of the general principles. Fifth, the necessity of improvement of the psychotherapeutic armamentorium of the practitioner beyond placebos and platitudinous admonitions of "cheer up and forget it", "take a trip", "don't worry about it", "get busy and forget yourself".—W.C.M.

## EDITORIAL COMMENT

Mme. Curie, co-discoverer of radium who died on July 4, was the first woman to be elected to the French Academy of Science.

Three milk-borne typhoid epidemics and one milk-borne diphtheria epidemic have been reported in the state within the past two months.

Thirty of the 68 physicians whose names are included in the necrology report were members of the Kansas Medical Society at the time of their death.

The tuberculosis death rate in Kansas in 1933 was 30.3 per 100,000 population. Only three states had lower rates than Kansas: Nebraska, 21.8; Iowa, 25.5, and Wyoming, 27.7. In Kansas, 1.86 cases were reported for each death.

According to reports made to the United States Public Health Service, 2,479 cases of acute poliomyelitis have been reported in California from April 1 to August 11, inclusive. In the same period, 23 cases have been reported in Kansas.

The people already possess a considerable store of medical knowledge—a half-knowledge, of course, but enough to be applied as touchstones of their physician's up-to-dateness and of his interest in them. *(Jour. Med. Assoc. of Ga.)*

Six members of the medical profession in the state have been nominated as candidates of their respective parties for representative. Doctors E. L. Morgan of Phillipsburg and W. M. Blount, of Kansas City, are candidates for reelection.

Sneath reports: "In spite of some variation in the degree of response to tetanus toxoid, the antibody production in horses and man is such that tetanus toxoid may be advocated for active immunization whenever such immunization is desirable." *(Canad. P.H.J.*, April 1934).

## THE LABORATORY

Edited by
J. L. LATTIMORE, M.D., Topeka

### The Diagnosis of Drunkenness from a Laboratory Standpoint

The accurate and reliable diagnosis of alcoholic intoxication has long been a matter of some concern to the medical profession. Physicians have repeatedly sought in the laboratory a method which would enable them to establish a diagnosis of drunkenness that would withstand the cross-examination of defense lawyers in court and at the same time would be sufficiently rapid and simple in its performance to be included in the general hospital routine.

In legal medicine, such a method would be of value in establishing the responsibility in accident cases, even where the party in question was severely or fatally injured, in confirming the evidence of an officer who has made an arrest for drunkenness, and in evaluating the intoxicating properties of various beverages. In hospital routine, such a method would often simplify the differential diagnosis of coma, particularly in accident cases.

It has been shown by various workers[1, 2, 3] that a chemical test for alcohol in the blood, urine, or spinal fluid is the only completely reliable means of diagnosing alcoholic intoxication, and further, that the amount of alcohol found in these fluids may be taken as an absolute index of the degree of intoxication, regardless of the tolerance of the individual, the amount ingested, or other variable factors. These observers and others have proposed several technics of analysis, ranging from the long and tedious separation of the alcohol in its pure form by fractionation, and subsequent analysis by the pycnometer or the simpler but relatively expensive refractometer, to the rapid and easily performed, but frequently inaccurate, colorimetric methods which depend on the ability of ethyl alcohol to reduce certain substances, while at the same time forming a product of a color sufficiently different from that of the original substance to render colorimetric comparison feasible. The best of these latter methods, from the standpoint of simplicity and accuracy, appears to be that proposed by Heise,[3] which consists of distilling a small amount of blood or other fluid and treating a portion of the distillate with an acidified solution of potassium dichromate, which changes in color from yellow to blue in the presence of alcohol. The test may be carried out on as little as 5 cc. of oxalated blood or 30 cc. of urine, and according to the author is not affected by any of the normal or abnormal constituents likely to be present in body fluids. The results of numerous experiments[3] show a high degree of accuracy and specificity. An added advantage is that the specimens may be preserved with sodium fluoride (for blood) or benzoic acid (for urine) and will retain their alcoholic content, practically unchanged, for at least a month at room temperatures, making the shipment of specimens a simple procedure.

In the light of these facts, the method of Heise would appear to merit consideration for medicolegal diagnosis of alcoholic intoxication and for inclusion in the routine examination of accident cases and patients brought to the hospital in a comatose condition, in addition to the customary sugar, urea, and carbon dioxide combining power determinations run routinely on the latter.

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1. Heise, H. A., and B. Halpern: Medicolegal Aspects of Drunkenness. Penn. Med. Jour., xxxvi, (1932), p. 190.
2. Bogen, E.: Diagnosis of Drunkenness. Calif. & West. Med., xxvi, (1927), p. 778.
3. Heise, H. A.: The Specificity of the Test for Alcohol in Body Fluids. Amer. Jour. Clin. Path., iv, (1934), p. 182.

—B—

Accidental deaths reported in the state to August 1, show an increase of 22.6 per cent over the total for the same period of 1933. Indications are that the total for 1934 will be the highest ever recorded. Two hundred and six deaths were reported from excessive heat during the month of July and these deaths comprised 56 per cent of the 364 deaths due to external violence, exclusive of suicides and homicides. For the seven months of the present year, 247 deaths have been reported from automobile accidents as compared with 235 for the same months of 1933, an increase of 5.1 per cent.

## RECENT MEDICAL LITERATURE

Edited by
WILLIAM C. MENNINGER, M.D., Topeka

### PEPTIC ULCERS

The author reports the study of the frequency of the development of peptic ulcers in dogs deprived of pancreatic juice because of fistulas in some and due to complete pancreatectomy in others. Of 16 dogs with fistulas, only one had developed ulcers at the end of a 37 day period. This animal was jaundiced and had marked evidence of degenerative changes in the liver. In the eight animals with complete pancreatectomy, no ulcers appeared at the end of from 61 to 270 days. He compares this data with the reports of various people working with dogs in which bile was excluded from the intestines, and concludes that peptic ulcers develop more readily in dogs after the exclusion of bile than after the loss of pancreatic juice.

**Berg, B. N.: Peptic Ulcers. Arch. of Surgery, 28:1057-1061, June, 1934.**

### AVERTIN ANESTHESIA

The effect of avertin anesthesia on normal people was studied in order to ascertain the uncomplicated effects of the drug. Fifteen cases were observed. The effects were:

1. Increase in pulse rate, average increase being 16 per minute.
2. Increase in respiratory rate, average increase being six per minute.
3. Decrease in amplitude of respiration.
4. An average decrease of 1.3° F. in rectal temperature.
5. An average decrease in systolic blood pressure of 24 mm.
6. An average decrease in basal metabolism of 22 per cent.
7. An average decrease in clotting time of three minutes.
8. A slight rise of blood sugar, a slight fall of carbon dioxide content of the blood and a slight rise of plasma volume.
9. A negligible change in venous pressure, blood cholesterol and cholesterol ester, blood calcium, blood chlorides and formed blood elements.
10. Slight oliguria and an increase in the specific gravity of the urine.
11. Loss of conjunctival and tendon reflexes, with a late perseveration of cutaneous and pharyngeal reflexes.
12. Slight cyanosis in two instances, increase in the secretion of mucus, in the pharynx in five instances and a slight vomiting in three instances.
13. No untoward effects followed the use of avertin in the dosage employed in basal anesthesia.

**Arnheim, E. E., and Tuchman, L. R.: Avertin (Tribromethanol) Anesthesia in Normal Persons. Arch. of Surg. 29:1-15, July, 1934.**

### ARTERIOSCLEROSIS IN DIABETES MELLITUS

Because of the high and increasing incidence of vascular disease among diabetics and its influence on mortality, various methods for its detection were evaluated statistically. Clinical methods, fundi examination and $x$-ray of the heart and of the extremities were evaluated as methods for detecting arteriosclerosis in diabetic patients. The authors conclude that a combination of these methods is much better than any single method, and they stress the importance of early diagnosis.

**Rabinowitch, I. M., Ritchie, W. L., and Hanford: A Statistical Evaluation of Different Methods for the Detection of Arteriosclerosis in Diabetes Mellitus. Ann. of Int. Med. 7:1478-1490, June, 1934.**

### GUNSHOT WOUNDS OF THE HEAD

A series of 105 cases of gunshot wounds of the head treated at the Cincinnati General Hospital between 1922 and 1932 are reported. Of these, 96 were craniocerebral injuries. Operations were performed on 31 cases. The mortality rate was 80.2 per cent in the craniocerebral injuries and 45.1 per cent in those cases in which operation was performed. All except eight patients were admitted to the hospital within an hour after injury. Of the 77 deaths, 42.8 per cent occurred within two hours and 90.9 per cent within 24 hours. The high death rate in this series as compared with the statistics of the World War is undoubtedly due to the immediate hospitalization of the patients. That is, those who died within the first two hours after wounded, were often dead before found during battle, so did not die during treatment, whereas, the statistics from the Cincinnati General Hospital include among those who died during treatment, those who died during the first two hours after being shot. In this series of 105 cases there were 56 attempted suicides. Infection was

the main cause of death among patients who did not die as a direct result of the injury.

Goode, John V.: Gunshot Wounds of the Head. Arch of Surgery, 29:16-23, July, 1934.

MALARIA THERAPY

Asymptomatic neurosyphilis refers to those cases in which the cerebrospinal fluid is positive but in which there are neither signs nor symptoms of syphilitic involvement of the nervous system. Malaria inoculation was given 89 patients who had previously been given arsphenamine, mercury, bismuth, etc., without producing the serological changes. In some of these the nervous system was mildly infected and in others it was severely infected. Malaria therapy resulted in the reversal of the spinal fluid reaction in 58 per cent of those mildly affected and 30 per cent of those severely infected. Those in which the spinal fluid remained positive were again given chemicals. Since it is believed that asymptomatic neurosyphilis is the forerunner of dementia paralytica or tabes dorsalis, patients with asymptomatic neurosyphilis are entitled to the advantage of malaria therapy, on the basis that it is more valuable in the prevention of tabes or paresis than in the treatment of it.

O'Leary, P. A.: Malaria Therapy in Asymptomatic Neurosyphilis. Ann. of Int. Med., 7:1513-1523, June, 1934.

ELECTROPYREXIA

The authors review the literature in electrically produced fever as a therapeutic agent and give the following points in the way of technic:

1. The selection of patients in early cases of neurosyphilis before cellular destruction has taken place.

2. Fever should be maintained at a given height for a definite period 103.5° F. for six hours and two additional hours at 105.8° F. Treatments are given twice weekly and about 20 treatments to a course.

3. Electropyrexia has been used successfully in the treatment of multiple sclerosis. Temperature should never exceed 105° F. Treatment should terminate any time that the patient's pulse exceeds 160 per minute.

4. Fluid loss that occurs in the treatment is replaced by liberal amounts of water containing six grams of sodium chloride per liter. This lessens the vomiting and cramps that result from chloride loss.

5. These methods must be modified to meet the individual reactions that occur.

Osborne, S., and Markson, D. E.: Electropyrexia: A Resume of Therapeutic Applications and Technics. Ann. Int. Med. 7:1391-1398, May, 1934.

## Report of the Executive Secretary Committee

At our recent state meeting in May the House of Delegates appointed an Executive-Secretary Committee which was authorized to employ a full-time Executive-Secretary for the State Society and to supervise his activities until the next state meeting.

This committee has been working diligently on these problems. The first meeting was held in Wichita May the 11th. Following this meetings were held at Emporia on June 3rd, at Wichita June 24th, and at Topeka on July the 29th.

A number of very excellent applications were received for this position. These were narrowed down to the six applicants that seemed to offer the best qualifications and these six applicants then met in person with the committee. At this time the qualifications, personality, and the ability of the applicants were carefully studied by the entire committee. On the basis of his work Mr. Clarence Munns was selected by your committee as a full-time Executive-Secretary of the State Society. Some of Mr. Munn's qualifications were stated in the August issue of the JOURNAL. The qualifications and recommendations of this applicant seem to the committee to be of the highest character, and the committee is unanimous in feeling that a very excellent choice has been made and we are unanimous in the feeling that our new Executive-Secretary will fill this position very ably indeed.

Mr. Munns officially started his work the 1st of August and during the month of August is visiting and studying full-time executive offices in other states; namely, in Indiana, Ohio, Michigan, Wisconsin, Missouri, and Minnesota, including a trip to the American Medical Asso-

ciation headquarters. At the end of this trip Mr. Munns will spend several days with Dr. Hassig in Kansas City learning the details of the work that has been going on in our own state office.

In addition to this work the Executive-Secretary Committee met with the Executive Committee of the Council to take up the question of the selection of an editor and an editorial board for the State JOURNAL as per the instructions of the House of Delegates. After considerable discussion the Executive Committee of the Council delegated the selection of the editor and the editorial board to the Executive-Secretary Committee, and this committee is very happy to announce that Dr. W. M. Mills of Topeka has accepted, although reluctantly, the position of editor. The formation of the editorial board is now going on and its personnel will be announced later. Dr. Earle Brown has kindly consented to continue the editorship of the JOURNAL through the August and September numbers until this new board has had a chance to take up its duties.

I want to call attention to the fact that the editor and the editorial board are serving the State Society without any financial remuneration. This will mean that these men will give a great deal of their time and thought to the interests of the State Society. It is only fair that every member of the State Society be willing to give the editor and the editorial board full cooperation and any measure of help that they may wish in fulfilling their duties.

On the return of Mr. Munns from his trip this State Executive office will be established in Topeka.

I wish here to express to each member of the Executive-Secretary Committee my appreciation for the splendid work of this committee and the practically one hundred per cent attendance at the meetings. There is a great deal of work still lying before this committee and a further report will be made to the State Society in several months.

HENRY N. TIHEN, M.D., Chairman
Executive-Secretary Committee.

## CANCER SURVEY OF KANSAS

(Continued from Page 348)

At a recent meeting of the Board of Directors of the American Society for the Control of Cancer a resolution was passed stating that, in the absence of adequate laboratory facilities for the examination of tumor tissues, such facilities should be provided by the state in which the situation exists.

Were such facilities available to all hospitals and practitioners of the state, it would enable many physicians in rural communities, without hospital facilities, to render a more adequate service to their patients.

The lack of adequate facilities for laboratory examination of tissues removed at operation in many Kansas hospitals suggests that some method be developed whereby all such tissues be examined. At the present time there is no control over this important activity of hospitals of the state. Serious thought might well be given to the development of legal requirements for examination of all removed tissue.

From the information gathered in this survey, the conclusion seems warranted that in many Kansas hospitals, neither hospital executives nor staffs are actively interested in securing autopsies. In some cases the lack of a pathologist on the staff may account for the small number or absence of autopsies. The absence of internes in many hospitals probably is another reason for inattention to autopsies in these institutions. Sixty-three per cent of all autopsies in 1932 were made in four Kansas City hospitals.

It is believed that were concerted efforts made by the physician in charge of the case, the interne when available, the pathologist, and the hospital authorities, the number of necropsies in Kansas hospitals could be increased materially. Community opposition to such procedures can be overcome by tactful measures on the part of those most interested in the problem.

No cancer services were found in Kansas hospitals organized in accordance with the minimum standards recommended by the American College of Surgeons, and with present facilities, but few Kansas hospitals can meet the minimum requirements because some necessary part of the

organization is lacking, usually laboratory or irradiation facilities or social service.

Two hospitals in Kansas City, Bell Memorial and St. Margaret's have undertaken an improved cancer service that may in time meet the minimum standards. The organization at Bell Memorial Hospital should be expanded to meet the minimum requirements for such service and fully coordinated with medical teaching. The value of the group method of handling cancer patients has been accepted by those with extended experience in the work. That medical students may take advantage of the latest experience in dealing with this disease, a fully organized cancer service should be functioning in this hospital with the study of such patients a required part of the student's training. When practicable, special wards or a special building might well be provided for this service. Patients admitted to this service should be utilized fully for teaching purposes with the undergraduate student body and for postgraduate education.

If and when a special state cancer hospital is established, it should be in connection with Bell Memorial Hospital so that its facilities can be used for educational purposes.

The supply of radium at Bell Memorial Hospital should be increased to 1,000 milligrams, the additional amount to be distributed in containers to provide the greatest flexibility of application. Whether the entire amount should be in needles or whether an emanation plant should be provided is a matter for future decision.

Facilities should be provided at this hospital for social service investigation of all cancer patients. In the absence of full-time, medically trained social workers, it might be possible to assign students from the sociology department of the state university to the study of specific problems in this field.*

The cancer service begun at St. Margaret's Hospital, Kansas City, should be expanded to care for cancer patients in that community not eligible for treatment in Bell Memorial Hospital. Pay as well as indigent patients could be cared for in this hospital. An increased supply of radium, up to 300 milligrams, would complete the physical requirements. The proper staff organization is a problem for the hospital authorities and staff members to solve.

An organized cancer service to meet the minimum requirements should be developed in Wichita. A capable pathologist, deep therapy, and 100 milligrams of radium are available, and by the addition of 300 milligrams of radium a service could be developed that would meet the needs of Wichita and a large tributary area. If it is not possible to work out an acceptable program under hospital direction, it should be done under auspices of the Sedgwick County Medical Society.

While lack of facilities in hospitals outside of Kansas City and Wichita preclude the development of a complete tumor service, the addition of facilities or personnel to some of them would make an improved service possible. Although the radium and deep therapy in Sterling are available to Hutchinson patients, it is probable that a larger number could be served if this equipment were available in a Hutchinson hospital. By the addition of deep therapy and an increased amount of radium, 150 milligrams, an improved service could be made available in Topeka. Present radium supplies in Chanute and Fort Scott hospitals might be increased as needed to serve more patients in these communities.

Owing to its organization and wide area from which patients come, the Halstead Clinic and Hospital is not comparable to other Kansas hospitals. As this institution has no irradiation facilities, it cannot meet the minimum standards for an organized cancer service. This is said in no criticism of the excellent work carried on in this hospital.

Cancer diagnostic services could be developed in Great Bend, Newton, and Salina. The addition of a pathologist to the professional group in Hays would enable a diagnostic service to be offered in that city.

What has been said is no criticism of physicians in other communities, but is to point out the practical difficulties in providing adequate diagnostic and treatment facilities in these places. As far as the resources of any community permit, the fullest possible service should be rendered

*Since this survey was completed a trained social worker has been assigned to the follow up of cancer patients as her first duty.

to cancer patients, and when conditions are found beyond the scope of local resources, patients should be referred elsewhere for treatment.

While the suggested increases in radium may seem large in comparison to those now available, it should be remembered that the supply of radium in Kansas is very much below that considered advisable for acceptable cancer service. If the entire recommended quantities of radium cannot be procured, any additions to the present supply will in proportion increase treatment facilities of the state.

There are private cancer clinics in Pittsburg and Winfield. The Pittsburg clinic sponsoring this service brings in a radium therapist and radium from Kansas City, Missouri, to supplement its deep therapy facilities. In the Winfield organization neither radium nor deep therapy is available and the radium therapist mentioned above is called on for service. Patients needing deep therapy are referred elsewhere. Whether these private clinics can serve community needs as adequately as similar undertakings under proper hospital organization and control remains to be seen. The Pittsburg clinic reported seeing nearly 300 tumor patients during its first year's work. The operation of these clinics should be studied carefully.

Contact should be maintained with all cancer patients for at least five years after their first treatment. This is not so difficult in smaller communities as it is in larger ones. Such an undertaking requires cooperation of the clinical, record, and social service departments and utilization of official and private health and welfare facilities. The following outline indicates some major factors in such an undertaking.

OUTLINE OF PLAN OF FOLLOW-UP ON TUMOR PATIENTS

A. COOPERATING GROUPS
1. Hospital administrative groups
   a. Superintendent
   b. Social Service worker
   c. Record clerk
   d. Chaplain
   e. Nurses
2. Hospital staff
   a. Cancer committee—if any
   b. Physician in charge
   c. Radiologist
   d. Pathologist
   e. Internes
3. Community groups
   a. Department of Health
      A. Public health nurses
      B. Bureau of Vital Statistics
   b. Visiting nurses
   c. Private health organizations
   d. Charitable and welfare organizations
   e. Life insurance companies

B. RECORDS

Records to be entered on forms comparable to all hospitals. The forms of the American College of Surgeons are recommended, not that they are necessarly the best, but offer a form from which comparable data may be obtained. Information as to deaths may often be obtained from the Division of Vital Statistics of the local or state health department.

C. SCHEDULE

Follow-up to be maintained on approximately the following schedule:

Monthly for the first six months
Bi-monthly for six months
Every three months for the second year
Semiannually for three years
Annually thereafter, preferably for life

Information to be obtained by personal contact, by written inquiry, and through cooperating groups noted above. A personal letter is better than a printed form or post-card inquiry.

Life insurance companies will help trace an insured person if the name, number of insurance policy, and name of insurance company are given. They will know if such a person is alive and where located; or if dead, date and cause of death. Inquiries to trace such patients should be addressed to Dr. T. H. Willard, Medical Director, Metropolitan Life Insurance Company, One Madison Avenue, New York, who is chairman of the committee of the insurance companies having this matter in charge. It is suggested that the name of insurance company and number of policy, if any, be added to the record of all cancer cases.

In connection with an improved service for examination of tumor tissues and autopsy material, it would be well to establish a registry at Bell Memorial Hospital where a record of all tumors could be filed. Such a registry should contain a stained and mounted section of tissue, the block from which the section was cut, a short description of the tumor, and a concise clinical summary of the case. The registry collection should be available at all times for study by reputable physicians or students of medicine and allied subjects.

A similar registry might be organized in Wichita when the cancer service recommended previously is organized. The work of this registry should be correlated with that suggested for Bell Memorial Hospital.

Similar registries have been established at the State Laboratory of Hygiene, Madison, Wisconsin, at Lankenau Hospital, Philadelphia, in Washington, D. C.,

Peoria, Illinois, Toledo, Ohio, and elsewhere. National registries are: The Registry for Bone Sarcoma, American College of Surgeons, Registry for Lymphatic Diseases, Registry of Bladder Tumors, and Registry of Eye Tumors at the Army Medical Museum, Washington, D. C.

The suggested registries would add materially to our knowledge of the cancer problem in Kansas.

The organization of a special group for the diagnosis and treatment of cancer should be based on two considerations. The first is the better service such a group can render to cancer patients through combined diagnosis and opinion as to treatment; the second, the opportunity offered for educational work in this field for medical and related groups. Given proper facilities, the successful initiation of a program depends on the active interest of a few members of the hospital staff. This must be a compelling interest that will not stop to count the cost in time and energy necessary to advance the plan. The pathologist, radiologist, surgeon, and internist each must be willing to contribute generously to the undertaking. Just which member of the group becomes the director depends on the local situation. The surgeon doubtless will be chosen in many cases. The pathologist, because of removal from actual clinical treatment, has much to recommend him. No matter who is chosen, selection should be on the basis of active interest, executive talent, and ability to win the cooperation of other members of the special group and hospital staff.

The question of treatment of pay patients always arises when an organized cancer service is discussed. Obviously for the good of the patient, the same type of organization should be available for pay patients as serves the indigent group. Ability to pay should not deprive a patient of the advantages of an organized service. It has been suggested that a physician with a paying cancer patient should refer this patient to the special service for diagnosis and advice regarding treatment, the treatment to be carried out by the referring physician as he may choose. This plan gives both the patient and the physician the advantages of group opinion on the case. Ways can be found for the care of pay patients in a special cancer service, but the development of a plan rests with the local profession and hospitals.

Provision of adequate diagnostic and treatment facilities for malignant disease is beyond reach of the average general hospital from current resources. Assistance in meeting this need can be expected from two sources only: private philanthropy or public taxation. Private funds usually will be larger in amount, of a more permanent nature, and with fewer political alliances to handicap their administration.

After the superiority of an organized cancer service over existing uncoordinated methods of handling these cases has been established it may then be advisable to seek public support of the work. An extended period of demonstration is desirable, however, before recourse to public funds is considered. Support of cancer work by taxation places the disease in the public health group and distributes the burden among the entire population which, by reason of this participation, may have a greater interest in the subject than if it is left to the generosity of a few community minded persons.

The best methods of meeting the cancer problem have not yet been developed. The medical profession should be given a reasonable time to show what it can do. If it fails, and recourse to state aid is found desirable, approach to such authorities should be through medical channels.

The control of cancer is in the hands of the medical profession and hospitals where it properly belongs. The interested public should confine its efforts to strengthening the resources of these two groups and to lay educational work so that cancer patients will come for examination at the earliest possible moment while there is the greatest opportunity for obtaining relief.

The medical profession should appreciate that cancer is not a one-man disease, but requires the best thought and skill of a special group for its diagnosis and treatment. The profession should also be stimulated by the thought that cancer is one of the few diseases, if not the only

one, in which medical skill alone can bring about a cure. Neglected cancer always kills, but the physician, by his skillful removal of cancer tissue, places his patient out of danger of death from the disease.

Physicians should not temporize with cancer or suspected cancer. Expectant treatment, viz. waiting to see what develops in the next few weeks or months, has no place in accepted cancer therapy. The answer should be obtained when the case is first seen. For practically all forms of malignancy, the physician has a choice of recognized methods of treatment. If facilities are not available locally, the patient should be referred to an institution where the answer can be given. Numerous instances could be cited where delay resulted fatally when there was a strong probability of recovery by proper treatment when medical opinion was first consulted, and also where a bold approach revealed malignancy in a tumor to all appearances benign when first seen. Only by a vigorous attack on the problem by physicians skilled in diagnosis and treatment of the disease can progress be made in reducing its incidence and mortality.

Cancer is the greatest challenge now before the medical world. Its wide distribution and increasing mortality demand the best thought of all scientists and only by intensive and cooperative efforts can the problem be solved.

The Kansas Medical Society can make an important contribution to cancer control by developing a program of postgraduate medical instruction for all physicians of the state. The facilities of Bell Memorial Hospital and of other hospitals should be utilized for this purpose. A similar program should be developed for the laity by offering speakers to women's clubs, church, school, and civic organizations.

For promoting interest in cancer diagnosis and treatment, at least one cancer program annually should be given before each local medical society. Cancer of one site, such as breast, cervix, skin, etc., might be featured for the year's work. At the end of five years, the major forms of malignancy would have been covered in a comprehensive postgraduate course. A cancer symposium and suitable exhibit would be desirable features of each annual state meeting.

The state society could bring about discussion and appraisal of diagnostic and treatment methods, looking toward greater uniformity of procedure in these important matters. It could encourage closer cooperation between the surgeon, internist, pathologist, radiologist, and general practitioner in handling these cases. It should take the initiative in securing more autopsies and bringing about laboratory examination of all removed tissues in all hospitals of the state not now having provision for such examination. It should encourage the appointment of cancer committees in each local medical society and in all hospitals treating cancer patients. Dentists should be given every opportunity to profit from these activities as they have opportunity to discover many malignant conditions in and around the mouth.

Cancer is given little attention by the State Department of Health in Kansas. The Division of Vital Statistics collects and analyzes the mortality figures and members of the department occasionally discuss the subject in public addresses. It is believed that the Health Department could contribute to the cancer education program by the distribution of information and literature on this subject.

In view of the place now held by cancer as a cause of death in Kansas, the State Department of Health might well consider the organization of a division of cancer control. Such a division could carry on investigations in prevention and control of cancer, the analysis of hospital and autopsy records, and of death certificates, and their correlation for the presentation of accurate statistics on the cancer situation in the state. Such studies and correlations would be of great assistance to the physician, would do much to improve hospital diagnosis and practice, and would supply an abundance of material for public education in prevention and control of this disease.

The Kansas Committee of the American Society for the Control of Cancer could assist the state medical society in the preparation of educational material for postgraduate work and for local society pro-

grams. It can also assist by supplying literature on cancer topics to the laity, by the organization of meetings for their discussion by competent speakers, and similar activities. This committee can render assistance to organized cancer services by directing the public to them, by providing educational matter, by helping to finance needed clerical assistance when the service is in operation, by cooperating in the follow-up of cancer patients, and by similar undertakings.

It would be a practical and logical procedure for the Kansas Medical Society, the medical school, the State Department of Health, and the state committee of the American Society for the Control of Cancer to cooperate in a state-wide educational program. The details of such a program will be discussed later. This plan, if carried into full operation, would provide for Kansas an adequate diagnostic and treatment service for all cancer patients within the state. It would educate physicians in acceptable diagnostic and treatment methods, and would provide ample factual and other information on which a public educational program could be based.

## RECOMMENDATIONS

The following recommendations are made for an improved cancer service in Kansas:

1. Special cancer services, to meet the minimum standards of the American College of Surgeons, should be organized in Bell Memorial and St. Margaret's hospitals, Kansas City, and in Wichita. By the addition of some equipment, an improved service could be offered in Hutchinson and Topeka. Diagnostic clinics could be organized in Great Bend, Newton, and Salina; also in Hays by the addition of a capable pathologist. These diagnostic centers should serve as headquarters for local cancer committees and should be supplied with educational material for the medical profession and public. Other communities should be encouraged to offer as complete a service for the diagnosis and treatment of cancer as their facilities permit.

2. A comparable and adequate record system should be used by hospitals treating cancer patients. The record forms of the American College of Surgeons are recommended for this purpose.

3. An adequate staff of medically trained social workers should be attached to the special cancer services to follow up all cancer patients. These workers should cooperate fully with clinical and record departments of hospitals with which they are connected.

4. A tumor registry should be developed in Bell Memorial Hospital in which would be filed tissues, slides, and concise clinical data on tumors removed in the hospitals of Kansas. This material should be available to physicians and others interested in the study of malignancy. If sufficient interest is shown, a similar registry might be established in Wichita in connection with the recommended cancer service. This registry should cooperate closely with the one at Bell Memorial Hospital.

5. The Committee on Control of Cancer of the Kansas Medical Society should be made a permanent committee with a minority of its members changing annually.

6. The Kansas Medical Society, through its Committee on Control of Cancer, should sponsor a five-year educational program for all physicians in the state in which cancer of a different region would be featured each year. The American Society for the Control of Cancer will cooperate in developing such a program.

7. One meeting each year of each local society should be devoted to cancer and each annual meeting of the state society should offer a cancer symposium and exhibit.

8. The Kansas Medical Society should cooperate with the medical school in preparing postgraduate courses on cancer to be given at Bell Memorial Hospital and elsewhere in the state as opportunity offers.

9. The Kansas Medical Society, in cooperation with the State Department of Health and the State Committee of the American Society for the Control of Cancer, should organize a state-wide lay educational program as soon as the professional and hospital facilities of the state are adequate for all cancer patients applying for attention.

10. In the development of professional and lay educational programs, cooperation of the dental and nursing professions should be obtained.

11. Examinations for medical and dental licensure and for registration of nurses should contain practical questions on malignant disease.

12. The Kansas Medical Society should consider seriously the lack of facilities in many hospitals of the state for the examination of tumor tissue, and ways and means whereby such examinations could be made with the greatest benefit to the patient and physician. Hospitals now permitting removed tissues to be discarded without examination should be discouraged in this practice.

13. The Kansas Medical Society should stimulate efforts to obtain a larger number of autopsies in the hospitals of the state.

14. The Kansas Medical Society should discourage the rental and use of radium by physicians not qualified to use it, and should advise the public of the probable consequences when radium is so used.

15. There should be developed in the State Department of Health a Division of Cancer Control with personnel and budget to carry out studies in the prevention and control of cancer, the analysis of hospital records, of autopsies, of death certificates, and of other information pertinent to this question. The director of this division should be a physician having clinical or other experience with cancer problems. Activities of this division should be educational in character and should not enter into the treatment of cancer in any form.

16. The law providing for the reporting of cancer to the State Department of Health should be enforced without injury to such patients, but to give valuable morbidity statistics for educational purposes.

17. A state cancer committee, functioning under auspices of the American Society for the Control of Cancer, should be formed of representative and influential medical and lay members. This committee should maintain a constructive interest in cancer prevention and control throughout the state. Wherever possible, it should assist in the work of organized cancer services and should cooperate with all other health and educational forces. Its members should serve as information centers on cancer problems in their communities. Local committees of similar composition should be formed when there is need for support of local cancer work.

18. It is believed that the needs of the cancer problem in Kansas will be met by development of organized cancer services along the lines mentioned. It is realized that cancer patients will continue to be treated in hospitals not equipped for cancer therapy and in physician's offices. The present status of cancer therapy makes it inadvisable for an institution or physician to undertake such work unless there are adequate facilities for the diagnosis, treatment, record keeping, and social service follow-up.

19. It is believed that these recommendations for an improved cancer service in Kansas can be made effective by cooperation of the Kansas Medical Society, representing the clinical and educational phases of medicine in the state, the State Department of Health, and the State Committee for the American Society for the Control of Cancer in a tripartite organization for cancer control. This cooperative group could weld into a strong working organization the cancer control facilities of the state so that cancer patients would receive acceptable and adequate treatment in the earliest possible stage of the disease. This organized effort would offer an unexcelled opportunity for undergraduate and postgraduate education in cancer diagnosis and therapy. Its effective working would make unnecessary the entrance of any other agency into the field of cancer prevention and control in Kansas. The contribution each member of this tripartite organization would make and the problems on which they would cooperate are indicated in the following pages.

20. There is appended to this report a short bibliography of books, journals, and reports on cancer subjects. This reading list is recommended to physicians, medical societies, and hospitals as suitable material from which authentic information on cancer subjects can be obtained.

21. If and when this report is approved by the Kansas Medical Society, its pub-

lication in full in the official journal of the society is recommended.

PROGRAM OF TRIPARTITE ORGANIZATION FOR CANCER PREVENTION AND CONTROL IN KANSAS

*A. Kansas Medical Society*

1. The Kansas Medical Society, cooperating with the medical school, should develop a program for education of the physicians of Kansas in the most approved methods of diagnosis and treatment of cancer and allied diseases.

2. It should cooperate with hospitals and other organizations to see that adequate facilities are available and competent treatment rendered to cancer patients in these institutions.

3. It should stimulate the provision of adequate laboratory facilities and trained personnel for the examination of all tumor tissues removed in the hospitals of Kansas.

4. It should stimulate the holding of more autopsies in hospitals of Kansas.

5. It should stimulate its members promptly to refer cases which they do not diagnose nor care to treat to institutions and to specialists interested in such cases.

6. It should endeavor to secure better histories and records of treatment of cancer cases and to obtain more accurate causes of death on death certificates.

7. It should encourage its members to read papers on cancer subjects at local and state society meetings.

8. It should supply its members with reliable statistics of the value of early diagnosis and adequate treatment.

*B. State Department of Health*

1. The State Department of Health of Kansas should make surveys to determine the character and extent of the cancer problem within the state as to the actual number of cases and deaths.

2. It should compile statistics from hospital cancer records by age, sex, organ, type of lesion, and of the time elapsing between the patient's first knowledge of the disease and his seeking medical attention.

3. It should make surveys of the hospital, nursing, and other services for cancer patients in Kansas.

4. In cooperation with the Kansas Medical Society, welfare, and other organizations, it should make studies of the economic problems of cancer patients in Kansas.

5. In cooperation with the Kansas Medical Society, it should stimulate the provision of proper facilities for the examination of tumor tissue in the hospitals of the state.

6. In cooperation with the Kansas Medical Society, it should provide informative articles on the cancer problem for distribution to the laity.

7. It should estimate periodically amount and quality of cancer service given in the state on the lines laid down in the Appraisal Form of the American Public Health Association.

8. It should cooperate with the Kansas Committee of the American Society for the Control of Cancer in its work of education of the public regarding early signs and symptoms of cancer and the value of early, adequate treatment.

*C. Kansas State Cancer Committee*

1. This Committee should cooperate with the Kansas Medical Society and the State Department of Health in activities suggested for these two organizations under this tripartite arrangement.

2. It should assist in education of the public in early signs and symptoms of cancer and value of early diagnosis and adequate treatment.

3. It should assist the public to obtain skillful attention in the treatment of this disease.

4. It should teach the public the value of periodic examination as a means of detecting cancer in its early and most hopeful stage.

5. It should educate responsible individuals in Kansas to the value of adequate facilities for the diagnosis and treatment of cancer and should urge the provision of funds when and where needed to supplement existing facilities for the treatment of this disease.

6. It should cooperate with voluntary health and welfare agencies in constructive activities relating to cancer.

7. It should keep fully advised of policies of the American Society for the Control of Cancer, of which it is the local representative, and should avail itself of all facilities the parent society has to offer. It should furnish the Kansas Medical So-

ciety and the State Department of Health with educational material from the parent society and should keep the Society's Field Representative, for that territory, fully advised of its activities.

BIBLIOGRAPHY

BOOKS

International Cancer Conference at London, 1928. Octavo, 588 pages, 1928, $12.00. John Wright & Sons, Bristol, England.

Neoplastic Diseases, James Ewing. Octavo, 1127 pages, 1928, $14.00. W. B. Saunders Company, Philadelphia.

Uterine Tumors, Charles C. Norris. 16mo., 251 pages, 1930, $3.00. Harper and Brothers, New York.

Cancer of the Breast, William Crawford White. 16mo., 221 pages, 1930, $3.00. Harper & Brothers, New York.

Cancer of the Rectum, E. Ernest Miles. 12mo., 72 pages, 1926, 12s. 6d. Harrison & Sons, London, England.

Bone Sarcoma, Anatole Kolodny. Royal octavo, 214 pages, 1927, $5.00. Surgical Publishing Company, Chicago.

Tumors of Bone, Geschickter and Copeland. Royal octavo, 214 pages, 1927. $5.00. American Journal of Cancer, New York.

x-Rays and Radium in the Treatment of Diseases of the Skin. George M. MacKee. Medium octavo, 788 pages, 1927, $10.00. Lea & Febiger, Philadelphia.

Causation, Prevention, and Treatment of Cancer, James Ewing. Post octavo, 87 pages, 1931, $1.00. Williams & Williams Company, Baltimore.

The Natural History of Cancer, W. Roger Williams. Medium octavo, 519 pages, 1908, $3.00. William Wood & Company, New York.

JOURNALS

The American Journal of Cancer. Issued monthly. Annual subscription price $9.00. Business Office: 654 Madison Avenue, New York.

Bulletin of the American Society for the Control of Cancer. Issued monthly. Annual subscription, $1.00. 1250 Sixth Avenue, New York, N. Y.

REPORTS

Report of the Royal Commission on the Use of Radium and x-Rays in the Treatment of the Sick, etc. Dr. John W. S. McCullough, Secretary, Chief Inspector of Health, Parliament Buildings, Toronto, Ontario, Canada.

Cancer Survey, St. Louis and St. Louis County, Missouri. Journal, Missouri State Medical Association, June, 1932, pp. 249-275.

Cancer Survey of Wisconsin, 1931. The Wisconsin Medical Journal, September 1932.

Cancer Survey of Iowa, 1932. Iowa Public Health Bulletin, Vol. 47, No. 4, December, 1933.

## THE PHYSICIAN'S LIBRARY

SPINAL ANESTHESIA, Technic and Clinical Application, by George Rudolph Vehrs, M.D., Salem, Oregon. Illustrated. The C. V. Mosby Company, St. Louis. Price $5.50.

This is one of the most complete volumes yet compiled on the subject of spinal anesthesia. Apparently no single thought on the subject has gone unexplained and done so in the greatest detail.

This is a most valuable book and one which should be read by all interested in spinal anesthesia.—M.B.M.

THE ESSENTIALS OF PHYSICAL DIAGNOSIS: By Robert W. Buck, M.D., Assistant Professor of Preventive Medicine and Instructor in Physical Diagnosis, Tufts College Medical School; Physician to Boston Dispensary. 259 pages with 21 illustrations. Philadelphia and London: W. B. Saunders Company, 1934. Cloth, $3.00 net.

The author of this small volume has undertaken to produce a concise manual of the principles and methods of physical examination. This is perhaps the latest of the many books available for this purpose, but it is unique, in that it is compact without sacrificing interest to brevity; concise without losing clarity in the process of condensation.

The writer's style is most happy. He reasons rather than dogmatizes. He impresses his ideas by clothing them in language which suggests that intimate contact between teacher and student sometimes called "Socratic."

The chapter on "The Body as a Whole" is of particular interest, and is somewhat of an innovation in books of this kind. Under this head the author discusses the general condition of the patient—the psychic state, the physical constitution and general structure of the body, the state of nutrition, the posture and gait or the position in bed, the presence or absence and the character of voluntary or involuntary movements, the appearance of the skin and the presence or absence of fever. All this is of the nature of a survey of the Body as a Whole, made by the trained observer as a prelude to the more detailed examination about to be made.

There is much in this book to commend it to the student of medicine, whether he be young or old, and the author exhibits the qualities of writer and of teacher happily combined.—O.P.D.

THE COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION: Volume XXV (Papers of 1933—Published 1934). Edited by Mrs. Maud H. Mellish-Wilson and Richard M. Hewitt, B.A., M.A., M.D. Octavo of 1230 pages with 210 illustrations. Philadelphia and London. W. B. Saunders Company, 1934. Cloth, $11.50 net.

This volume from the Mayo Clinic is one of the finest ever put out. It should be appreciated by the general practitioner as well as the surgeon as it contains so much valuable data of interest to both. Among some of the outstanding articles are, Functional Menstrual Irregularities, by Dr. Drips; Elliott's New Treatment of Pelvic Infections thoroughly discussed by Dr. Counsellor; The Diagnostic Significance of Bleeding from the Bowel by Dr. Brown and Treatment of Congestive Heart Failure, by Dr. Frederick A. Willus. Dr. Chas. H. Mayo gives his 45 years experience and study on Thyroid Deficiency.

The surgical field is well covered by leading articles presenting the latest advances in diagnosis and operative technic. —M.B.M.

**DISEASES OF THE SKIN**, by Oliver S. Ormsby, M.D., Clinical Professor and Chairman of the Department of Dermatology, Rush Medical College of the University of Chicago; Dermatologist to the Presbyterian and St. Anthony's Hospitals, and the Home for Destitute Crippled Children, Chicago, Illinois. Revision of the histopathology by Clark Wylie Finnerud, B.S., M.D., Assistant Clinical Professor of Dermatology, Rush Medical College of the University of Chicago; Assistant Attending Dermatologist to the Presbyterian Hospital, Chicago, Illinois. Fourth Edition, enlarged and thoroughly revised, published 1934. Large Octavo, 1288 pages, illustrated with 619 engravings and three colored plates. Lea and Febiger, Philadelphia. Cloth, $11.50, net.

Descriptions of 36 new diseases are included in this edition; 20 more have been entirely rewritten and 124 new illustrations have been added. Every disease of the skin now known has been considered. The book is practical both in plan and treatment and its splendid organization makes complete information readily available. Many prescriptions and formulas are included. Printed on high grade paper and large type, which makes easy reading. It is a valuable book for the library of every physician.—E.G.B.

**THE SURGICAL CLINICS OF NORTH AMERICA.** (Issued serially, one number every other month). Volume 14, Number 3, (Mayo Clinic Number—June, 1934). Octavo of 221 pages with 70 illustrations. Per Clinic Year, February, 1934, to December, 1934. Paper, $12.00; Cloth, $16.00 net. Philadelphia and London: W. B. Saunders Company, 1934.

This surgical volume from the Mayo Clinic is fully up to the high standard of all work from this clinic.

Many interesting cases with thorough discussions and helpful suggestions are presented by leading men of their staff.—M.B.M.

**PRACTICAL MEDICINE SERIES, THE YEAR BOOK ON GENERAL THERAPEUTICS**: Edited by Bernard Fantus, M.S., M.D., Professor of Therapeutics, University of Illinois College of Medicine; Member, Revision Committee of the U. S. Pharmacopoeia and of the National Formulary Revision Committee; Director of Therapeutics, Cook County Hospital. The Year Book Publishers, Inc., Chicago. Price $2.25.

For the busy doctor of scanty leisure who wishes to review the year's advance in therapeutics and therapeutic methods, this book is well adapted. It is a notable fact that books of this caliber, brief, concise and yet comprehensive in scope, are becoming more popular than the voluminous and cyclopedic works which are expensive and become obsolete before they can be read. The contents of this handbook are largely derived from current periodical literature, and references to such sources are given under every topic, so that the reader may easily obtain the original article, at small expense, if he so desires, after reading the abstract. These abstracts are very ably written, and in most cases leave little to be desired by the physician who wishes to make immediate application of the information thus obtained.—O.P.D.

**POSTURES AND PRACTICES** during Labor Among Primitive People. Adaptions to Modern Obstetrics, with chapters on taboos and superstitions and postpartum gymnastics: by Julius Jarcho, M.D., F.A.C.S. 160 Pages with 130 illustrations. Published by Paul Hoeber, Inc., New York. Price $3.50.

This is a book of around 150 pages that is most interesting to any one interested in the field of obstetrics. It gives the source of many of the customs that we are very frequently affronted with during the process of some of the more complicated types of labor. The author also brings out the tribal source of some of the modern positions used to facilitate labor, such as the exaggerated lithotomy and the Walcher positions, stating that they have apparently arisen in various tribes because it seemed to facilitate the progress of labor and not because of the primitive people having any knowledge of the shifting of the measurements of the pelvis.

The author stresses the fact that although there has been a great deal of stress put upon all types of massage and many procedures in the antenatal period to promote the return of the original figure after delivery, that very little stress has been laid to the gymnastics that may be profitably used in the postnatal period. His chapter on postpartum gymnastics is excellent and warrants careful consideration.—L.R.P.

**SURGERY OF A GENERAL PRACTICE**, by Arthur E. Hertzler, M.D., chief surgeon, Halstead Hospital; professor of surgery, University of Kansas, and Victor E. Chesky, M.D., chief resident surgeon, Halstead Hospital. 472 Illustrations. The C. V. Mosby Company, St. Louis. Price $10.00.

This book is written in Dr. Hertzler's inimitable style and is an extremely valuable guide to the so-called minor surgery as seen in general practice. The care of infections, the treatment of the common surgical emergencies as handled in the Halstead Clinic is given in good detail, and the book is easily read and would be valuable for the general practitioner as a handy reference.—C.E.J.

## List of Physicians Licensed by the Kansas State Board of Medical Registration and Examination, June 19-20, 1934.

### BY EXAMINATION

| NAME | SCHOOL | DATE OF GRADUATION | ADDRESS |
|---|---|---|---|
| Alderson, Clair M. | University of Kansas | 1934 | Erie, Kan. |
| Anderson, Wallace E. | University of Minnesota | 1934 | Kansas City, Mo. |
| Anderson, Winstan L. | University of Kansas | 1934 | Kansas City, Mo. |
| Asher, Henry H. | University of Kansas | 1934 | Akron, Ohio |
| Athy, Gregg B. | University of Kansas | 1934 | Kansas City, Kan. |
| Bach, Leo F. | Creighton University | 1933 | Wichita, Kan. |
| Bacon, Harold L. | Northwestern University | 1934 | Wichita, Kan. |
| Barker, John F. | University of Kansas | 1934 | Sabetha, Kan. |
| Beauchamp, Preston E. | University of Kansas | 1934 | Kansas City, Kan. |
| Buhler, Victor B. | University of Kansas | 1934 | St. Paul, Minn. |
| Case, Paul H. | Geo. Washington University | 1934 | Kansas City, Kan. |
| Cohenour, Howard L. | University of Kansas | 1934 | Kansas City, Mo. |
| Conklin, Quinton D. | University of Kansas | 1934 | Abilene, Kan. |
| Cox, Kenneth E. | University of Kansas | 1934 | Kansas City, Mo. |
| Delp, Mahlon H. | University of Kansas | 1934 | Kansas City, Kan. |
| Duckett, Thomas G. | University of Kansas | 1934 | Kansas City, Kan. |
| Eilers, Harrison | University of Kansas | 1934 | San Diego, Calif. |
| Eubank, Miriam D. | University of Kansas | 1934 | New York, N. Y. |
| Evans, Joseph G. | University of Kansas | 1934 | St. Louis, Mo. |
| Fernie, Jr., Robert W. | University of Colorado | 1934 | Birmingham, Ala. |
| Francisco, Clarence L. | University of Kansas | 1934 | Kansas City, Kan. |
| Fredeen, Robert C. | University of Kansas | 1934 | Ottawa, Kan. |
| Gacusana, Jose M. | Creighton University | 1932 | Wichita, Kan. |
| Geeslin, Lawrence E. | University of Kansas | 1934 | Kansas City, Kan. |
| Gertson, Emery T. | University of Kansas | 1934 | Wichita, Kan. |
| Gibbs, George M. | Coll. Med. Evangelists | 1934 | Tulsa, Okla. |
| Giffin, Glenn O. | University of Kansas | 1934 | Kansas City, Mo. |
| Gradinger, Billens | University of Kansas | 1934 | Pittsburg, Kan. |
| Gsell, George F. | Rush Medical College | 1933 | Wichita, Kan. |
| Hamilton, Howard E. | University of Kansas | 1934 | Kansas City, Kan. |
| Harvey, William T. | P & S Med. Coll. of Iowa | 1897 | Council Grove, Kan. |
| Haukenberry, Everett | University of Kansas | 1934 | Manhattan, Kan. |
| Hayne, Jemmima H. | University of Kansas | 1934 | Paipang-Ho Pai, China |
| Hesser, Herbert H. | University of Kansas | 1934 | Kansas City, Kan. |
| Hiebert, Peter E. | University of Kansas | 1934 | Kansas City, Kan. |
| Hill, Edwin R. | University of Kansas | 1934 | Pleasanton, Kan. |
| Hill, James E. | University of Kansas | 1934 | Wichita, Kan. |
| Hope, James L. | University of Kansas | 1934 | Wichita, Kan. |
| Horejsi, Alfred J. | University of Kansas | 1934 | Holyrood, Kan. |
| Hughey, Charles F. | University of Kansas | 1934 | Paola, Kan. |
| Huntley, Leslie L. | University of Nebraska | 1933 | Omaha, Nebr. |
| Isbell, Jr., Charles H. | University of Kansas | 1934 | Kansas City, Kan. |
| Kernan, Phillip D. | University of Wisconsin | 1933 | Madison, Wis. |
| Klein, Edward H. | University of Kansas | 1934 | Kansas City, Mo. |
| Lander, Ernest W. | Northwestern University | 1934 | Wichita, Kan. |
| Larson, Evert A. | University of Kansas | 1934 | Trenton, N. J. |
| Longenecker, Lida | University of Kansas | 1934 | Kansas City, Kan. |
| Looney, Gordon A. | Howard University | 1932 | Springfield, Mo. |
| Lynn, William F. | Harvard University | 1933 | Lindsborg, Kan. |
| MacLeod, Sherbourne | University of Oklahoma | 1933 | Wichita, Kan. |
| Marshall, Bromell M. | Washington University | 1934 | Topeka, Kan. |
| Mellott, Lennert B. | University of Kansas | 1934 | St. Louis, Mo. |
| Moore, Jr., Ernest M. | University of Kansas | 1934 | Kansas City, Mo. |
| Moser, Ernest C. | University of Kansas | 1934 | Powhattan, Kan. |
| Muller, Samuel B. | University of Kansas | 1934 | Kansas City, Mo. |
| Munsell, John D. | University of Nebraska | 1934 | Natoma, Kan. |
| Nay, Newell | University of Kansas | 1934 | Santa Barbara, Calif. |
| Oakes, Charles G. | University of Kansas | 1934 | Kansas City, Mo. |
| Obert, Francis C. | University of Kansas | 1934 | Kansas City, Kan. |
| Olson, Alton C. | University of Minnesota | 1934 | Kansas City, Mo. |
| Olson, Elmer H. | Coll. Med. Evangelists | 1933 | Oberlin, Kan. |
| O'Neil, Gerald C. | University of Kansas | 1933 | Axtell, Kan. |
| Outt, Charles N. | Creighton University | 1934 | Kansas City, Kan. |
| Parker, Elliott F. | University of Kansas | 1934 | Highland, Kan. |
| Pearson, Glenn A. | University of Kansas | 1934 | Kansas City, Mo. |
| Pfuetze, Karl H. | University of Kansas | 1934 | Manhattan, Kan. |
| Pokorny, Charles | St. Louis University | 1934 | LaCrosse, Kan. |
| Reeves, Eugene A. | Baylor University | 1934 | Kansas City, Kan. |
| Rogers, Frederick E. | University of Kansas | 1934 | Kansas City, Kan. |
| Schmidt, Herbert R. | University of Kansas | 1934 | Canton, Kan. |

## List of Physicians Licensed by the Kansas State Board of Medical Registration and Examination, June 19-20, 1934.

### BY EXAMINATION

| NAME | SCHOOL | DATE OF GRADUATION | ADDRESS |
|---|---|---|---|
| Smith, Robert P. | University of Kansas | 1934 | Kansas City, Kan. |
| Soderberg, Nathaniel | University of Kansas | 1934 | Kansas City, Mo. |
| Sohlberg, Jr., Robert | Northwestern University | 1934 | McPherson, Kan. |
| Solomon, William W. | Howard University | 1933 | Omaha, Nebr. |
| Speer, Frederick A. | University of Kansas | 1934 | San Antonio, Texas |
| Spencer, Harold F. | University of Kansas | 1934 | Kansas City, Kan. |
| Sprong, Aaron A. | University of Kansas | 1934 | Kansas City, Mo. |
| True, Otis H. | University of Kansas | 1934 | Kansas City, Mo. |
| Vail, Anthony D. | University of Kansas | 1934 | St. Louis, Mo. |
| Walker, Nellie D. | University of Kansas | 1934 | Kansas City, Mo. |
| Ward, Charles E. | Starling Med. College | 1892 | Little River, Kan. |
| Watson, Ethel | University of Kansas | 1934 | Independence, Mo. |
| Williams, Byron E. | University of Kansas | 1934 | Lawrence, Kan. |
| Woodbury, Robert A. | University of Chicago | 1934 | Kansas City, Mo. |
| Woodhouse, Charles L. | University of Kansas | 1934 | Kansas City, Mo. |
| Young, Chester L. | University of Kansas | 1934 | Kansas City, Kan. |
| Zupanec, Ralph | University of Kansas | 1934 | Kansas City, Kan. |

### BY RECIPROCITY

| | | | |
|---|---|---|---|
| Brown, Lionel B. | University of Nebraska | 1922 | Stratton, Nebr. |
| Davis, Henry L. | Tufts Medical College | 1914 | Huntington Park, Calif. |
| Dewey, Carroll W. | University of Nebraska | 1932 | Danbury, Nebr. |
| Eggleston, Donald E. | Washington Med. College | 1930 | Kingman, Kan. |
| Fricke, Fred J. | University of Nebraska | 1931 | Wichita, Kan. |
| Helm, Fred P. | University of Louisville | 1923 | Topeka, Kan. |
| Kiser, Willard J. | Vanderbilt University | 1930 | Sedgwick, Kan. |
| Knight, Robert P. | Northwestern University | 1933 | Topeka, Kan. |
| Scott, Vincent L. | West. Res. Univ. Med. Coll. | 1929 | Liverpool, Ohio |
| Spelman, Arch E. | University of Illinois | 1929 | Halstead, Kan. |
| Stafford, George E. | University of Kansas | 1932 | Salina, Kan. |
| Stewart, John N. | University of Nebraska | 1932 | Stratton, Nebr. |

## BIRTHS

*Hiawatha:* Dr. and Mrs. William Steinhauser, July 17, 1934; a daughter, Mary Ann.

*Independence:* Dr. and Mrs. Rodney G. Carter, June 15, 1934; a son, Spencer Douglas.

*Iola:* Dr. and Mrs. Frank Lenski, July 26, 1934; a son, John Joseph.

*Newton:* Dr. and Mrs. Herbert R. Schmidt, July 23, 1934; a daughter, Madalyn Elizabeth.

*Topeka:* Dr. and Mrs. William E. Michener, July 13, 1934; a daughter, Mary Jean.

*Wichita:* Dr. and Mrs. Bruce P. Meeker, July 11, 1934; a daughter, Wanda Ann.

## DEATH NOTICES

Hill, Mathew May, Winfield, aged 63, died July 6, 1934, of diabetes mellitus. He graduated from Rush Medical College, Chicago, in 1901. He was not a member of the Society.

McClellan, George Brinton, Weir City, aged 70, died July 22, 1934, of arteriosclerotic heart disease. He graduated from Northwestern Medical College, St. Joseph, in 1894. He was a member of the Society.

Moorhead, John Louis, Neodesha, aged 64, died July 13, 1934, of endocarditis. He graduated from Kansas Medical College, Topeka, in 1896. He was a member of the Society.

Wilkinson, Hugh, Kansas City, aged 57, died August 14, 1934, of coronary occlusion. He graduated from Rush Medical College, Chicago, in 1901. He was a member of the Society.

## PERSONALS—NEWS ITEMS

*Kansas City:* Dr. H. W. Kassel and Miss Marie Lasley, also of Kansas City, were married on June 9.

*Kansas City:* Dr. Lewis G. Allen was made a Fellow of the American College of Radiology on June 13 in Cleveland at the meeting of the American Medical Association.

*Larned:* Dr. C. H. Ewing attended the meeting of the Board for Registration and Examination of Nurses held in Topeka August 23.

*Morganville:* Dr. C. C. Stillman attended the meeting of American Association of Railway Surgeons, at Chicago on August 21-23. He presented a paper on the subject: "A Country Doctor Makes a Survey."

*Topeka:* Dr. and Mrs. W. F. Bowen and daughter returned August 28 from a month's vacation spent on Bay Lake, Minnesota.

*Topeka:* Dr. Karl A. Menninger of Topeka who was elected President of the Chicago Psychoanalytic Society in July has gone to Lucerne, Switzerland to attend the International Congress on Psychonalysis. He will read a paper on "Forms of Focal Self-Destruction."

*Topeka:* Dr. W. H. Nadler, Assistant Professor of Medicine, Northwestern University Medical School, Chicago, will be guest speaker at the meeting of the Shawnee County Medical Society on October 1. The meeting will be held at the Hotel Jayhawk, and the subject for discussion will be "The Diagnosis and Treatment of Diabetes Mellitus."

### The Kansas City Southwest Clinical Society Annual Fall Conference

The Kansas City Southwest Clinical Society announces the dates of the Twelfth Annual Fall Clinical Conference as October 1-4, inclusive, 1934. All scientific sessions will be held in the President Hotel, Kansas City, Missouri, beginning at 8:30 in the morning and continuing through the evening. Fourteen guest speakers will appear on the program.

Two hours will be alloted each morning to Sectional Lectures on pertinent medical subjects to be presented by members of the society. Four of these lectures will be in session concurrently, so arranged that the subjects will not conflict.

The public meeting on the evening of October 1, will bring as speakers, Rev. Alphonse Schwitalla, Dr. Morris Fishbein and Dr. George Pfahler, each of whom will bring a message of interest and value to the layman as well as the physician.

The local medical societies will cooperate with the Clinical Society in presenting the October 2 evening scientific session with addresses by Doctors Fred Rankin and Samuel Levine.

Each day, two of the guest speakers will give short non-medical talks before the Round Table Luncheons which promise to afford a few minutes relaxation from scientific thoughts.

An evening's entertainment has been arranged for the visiting physicians and their families at the William Rockhill Nelson Gallery of Art. The President's Dinner and the Alumni Dinners will bring the conference to a close on the evening of October 4.

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## TRUTH ABOUT MEDICINES

In addition to the articles enumerated in our letter of July 3 the following have been accepted:

Carbide and Carbon Chemicals Corporation. Triethanolamine-Carbide and Carbon Chemicals Corporation.

Lakeside Laboratories, Inc. Ampoules Dextrose (d-Glucose) 50 Gm., 100 cc.

Eli Lilly & Co. Ampoules Glucose (Dextrose, U.S.P.) Lilly, Unbuffered, 25 Gm., 50 cc. Ampoules Glucose (Dextrose, U.S.P.) Lilly, Buffered, 25 Gm., 50 cc. Ampoules Glucose (Dextrose, U.S.P.) Lilly, Unbuffered, 50 Gm., 100 cc.

Sharp & Dohme, Inc. Ivyol-Poison Ivy Extract-Mulford, one syringe package.

United States Standard Products Co. Diphtheria Toxoid, Alum Precipitated (Refined). Erysipelas Streptococcus Antitoxin (Refined and Concentrated). Dextrose Solution, 25 Gm., 50 cc. Dextrose Solution, 50 Gm., 100 cc.

### New and Nonofficial Remedies

The following products have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Nonofficial Remedies:

Diodrast—A mixture of a loose combination (in solution) of diethanolamine, and 3.5-diiodo-4-pyridine-N-acetic acid, in equimolecular quantities. Diodrast contains approximately 49.8 per cent of iodine. It is proposed as a contrast agent for intravenous urography. The use of the drug is contraindicated in patients with severe liver disorders, nephritis, tuberculosis or hyperthyroidism, and great care must be exercised in cases of uremia. Caution should be exercised in cases in which a reduction in blood pressure would be dangerous or otherwise undesirable. Diodrast is supplied in the form of diodrast sterile solution (35 per cent, weight/volume), 10 cc. and 20 cc. size ampules. Winthrop Chemical Co., Inc., New York.

Ampoules Thio-Bismol, 2 Gm.—Each ampoule contains 2 Gm. (30 grains) of thio-bismol (New and Nonofficial Remedies, 1934, p. 123), to be dissolved in 20 cc. of sterile distilled water before administration. Parke, Davis & Co., Detroit.

Urotropin—A brand of methenamine—U.S.P. (New and Nonofficial Remedies, 1934, p. 212). It is supplied in the form of tablets 5 grains (0.3 Gm.) and 7½ grains (0.5 Gm.). Schering & Glatz, Inc., New York.

Mixed Ragweed Pollen Extract Decimal Dilution Set—A mixture of equal parts of short and giant ragweed pollen extract, marketed in packages of five vials containing, respectively, 5 cc. of a 1:100,000 dilution, 5 cc. of a 1:10,000 dilution, 5 cc. of a 1:1000 dilution, 5 cc. of a 1:100 dilution, and 0.5 cc. of a 3 per cent dilution. Abbott Laboratories, North Chicago, Ill. (Jour. A.M.A., July 14, 1934, p. 109).

Carbarsone—p-Carbamido-phenylarsonic acid containing from 28.1 to 28.8 per cent of arsenic (As).—Carbarsone is proposed for the treatment of intestinal

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amebiasis. It is administered usually by mouth; in acute amebic dysentery or in resistant cases, retention enemas may be employed. While carbarsone is said to be less toxic than acetarsone and serious untoward effects appear to be uncommon, cutaneous disturbances and other reactions common to arsenic compounds have been observed. While visual disturbances appear to be quite rare, the possibility of their occurrence should be kept in mind. Excretion of the arsenic is relatively slow; suitable rest periods must therefore be interposed in the treatment to prevent cumulative effects. In view of the frequency of persistent infection in the absence of marked symptoms, adequate therapy includes re-examinations and repetitions of courses of treatment. The usual oral dosage for adults is 0.25 Gm. twice a day for ten days. As retention enemas, for adults, 2 Gm. dissolved in 200 cc. of warm 2 per cent sodium bicarbonate solution may be administered following a cleansing alkaline enema every other night for a maximum of five doses, if necessary. Because of the large dosage employed oral administration should be interrupted during this interval. Carbarsone is supplied in vials containing 2 Gm. and in pulvules (capsules) containing 0.25 Gm. The name is trademarked but the firm disclaims proprietary rights. Eli Lilly & Company, Indianapolis. (Jour. A.M.A., July 28, 1934, p. 259).

Carbarsone—Along with its announcement of the acceptance of carbarsone for inclusion in New and Nonofficial Remedies, the Council on Pharmacy and Chemistry issues a report reviewing much of the clinical work with Carbarsone. The Council's report concludes :It appears that carbarsone is a valuable addition to the anti-amebic armamentarium. It must be considered, however, that not a few patients are resistant to this agent as well as to other amebicidal drugs, and that while toxic reactions appear to be uncommon, a few serious accidents have occurred after administration of the usual therapeutic doses of carbarsone. The individual susceptibility to arsenic compounds of each patient must be evaluated and evidences of toxic manifestations must be watched for carefully, both during the period of therapy and, in view of the slow excretion of the administered arsenic, for a reasonable time afterward. (Jour. A.M.A., July 28, 1934, p. 258).

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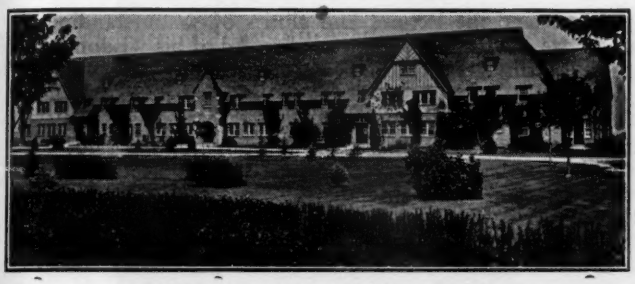

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DR. JOSEPH B. DELEE, Chicago, Ill.
DR. MORRIS FISHBEIN, Chicago, Ill.
DR. LEE F. HILL, Des Moines, Ia.
DR. SAMUEL IGLAUER, Cincinnati, O.
DR. SAMUEL A. LEVINE, Boston, Mass.
DR. PHILIP LEWIN, Chicago, Ill.
DR. H. O. MERTZ, Indianapolis, Ind.
DR. GEORGE E. PFAHLER, Philadelphia
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Sectional Lectures, October 2, 3, 4
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Clinic: K. C. Society of Ophthalmology and Otolaryngology October 4.

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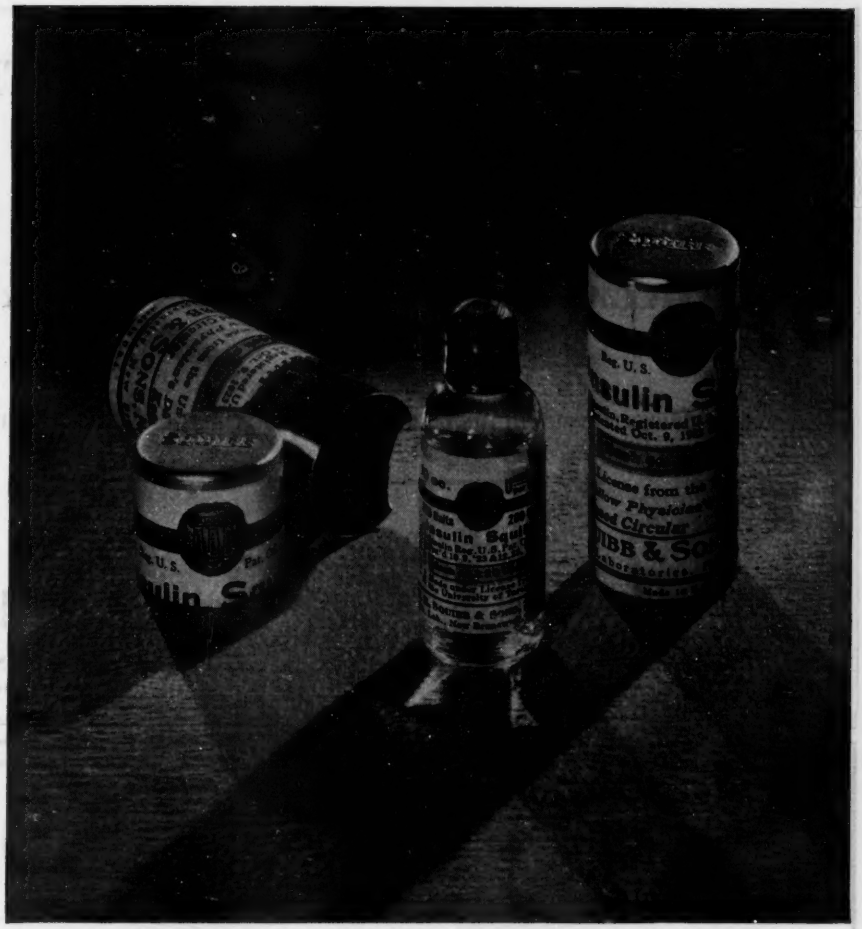

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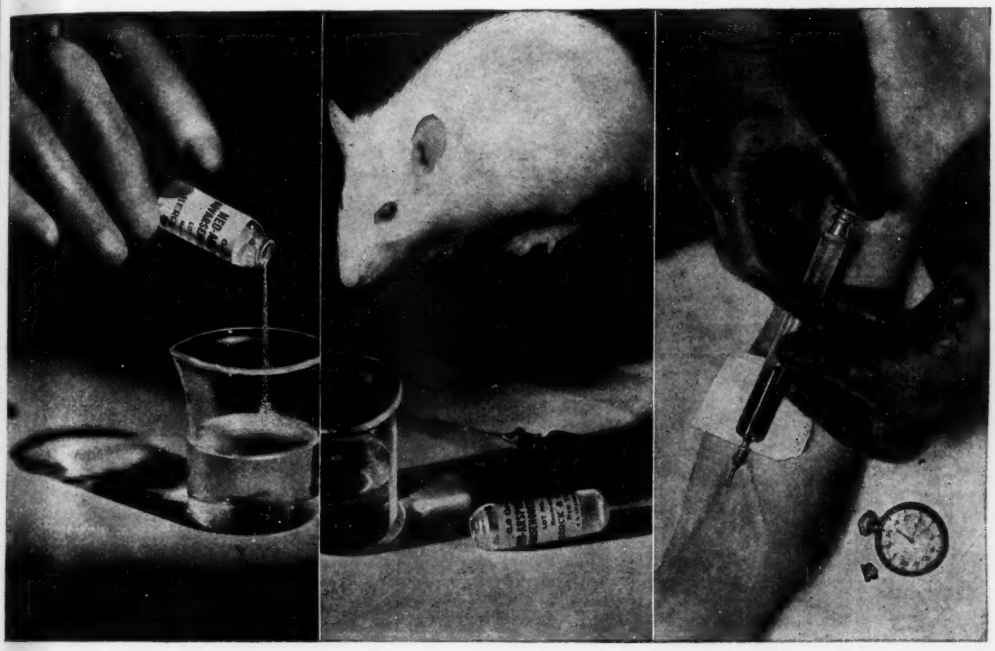

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